

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 641.—Vol. XVII.

LONDON, SATURDAY, DECEMBER 4, 1847.

[PRICE 6D.]

Stannaries of Cornwall.—In the Vice-Warden's Court.

RICHARDS & WYLD.

WHEREAS, the VICE-WARDEN did, by an ORDER or DECREE, made in the above-mentioned cause, and bearing date the 18th day of November last, Order and Decree that a SALE be made of the PARTS, or SHARES, and INTEREST of the said DEFENDANT IN WEST TOLGUS and TRELOWETH MINE, in the parish of ILLIGAN, within the said Stannaries, under the direction of the Registrar of the Court, and that the proceeds of such sale should be applied by the said Registrar in the manner directed by the said Order or Decree.

Notice is hereby given, that, pursuant to the said Decree, a PUBLIC AUCTION will be HOLDEN at Andrew's Hotel, in the town of REDRUTH, on Friday, the 10th day of December next, at Three o'clock in the afternoon, for SELLING, in such lots as shall be then and there determined on, EIGHT (566ths) PARTS, or SHARES, of and in the said MINE, and the like PARTS, or SHARES, of and in the ORES, HALVANS, MACHINERY, and MATERIALS, and other EFFECTS upon and belonging to the said mine.

For further information, application may be made to Messrs. Fassingham and Simmons, solicitors, Truro.

Dated Registrar's Office, Truro, Nov. 24, 1847.

Stannaries of Cornwall.—In the Vice-Warden's Court.

KNIGHT & WYLD.

WHEREAS, the VICE-WARDEN did, by an Order, or DECREE, made in the above-mentioned cause, and bearing date the 15th day of November last, ORDER and DECREE that a SALE be made of the PARTS, or SHARES, and INTEREST of the said DEFENDANT IN WHEAL BUCKETS MINE, in the parish of REDRUTH, within the said Stannaries, under the direction of the Registrar of the Court, and that the proceeds of such sale should be applied by the said Registrar in the manner directed by the said Order, or Decree.

Notice is hereby given, that, pursuant to the said Decree, a PUBLIC AUCTION will be HOLDEN at Pearce's Royal Hotel, Truro, on Wednesday, the 15th day of December instant, at Four o'clock in the afternoon, for SELLING in such lots as shall be then and there determined on, NINE (256ths) PARTS, or SHARES, of and in the said mine, and the like parts, or shares, of and in the ORES, HALVANS, MACHINERY, and MATERIALS, and other EFFECTS upon and belonging to the said mine.

For further information, application may be made to Mr. H. S. Stokes, solicitor, Truro.

Dated Registrar's Office, Truro, Dec. 1st, 1847.

Stannaries of Cornwall.—In the Vice-Warden's Court.

TIPPET & BENNETT.

WHEREAS, the VICE-WARDEN did, by an Order, or DECREE, made in the above-mentioned cause, and bearing date the Thirteenth day of November last, ORDER and DECREE that a SALE be made of the PARTS, or SHARES, and INTEREST of the said DEFENDANT IN WHEAL HENRY MINE, in the parish of KENWYN, within the said Stannaries, under the direction of the Registrar of the Court, and that the proceeds of such sale should be applied by the said Registrar in the manner directed by the said Order, or Decree. Notice is hereby given, that, pursuant to the said Decree, a PUBLIC AUCTION will be holden at Pearce's Royal Hotel, Truro, on Wednesday, the Fifteenth day of December instant, at Three o'clock in the afternoon, for SELLING, in such lots as shall be then and there determined on, ONE (109th) PART, or SHARE, of and in the said Mine, and the like PART, or Share, of and in the ORES, HALVANS, MACHINERY, and other EFFECTS, upon and belonging to the said Mine.

For further information, application may be made to Mr. H. S. Stokes, solicitor, Truro.

Dated Registrar's Office, Truro, December 1, 1847.

CARMARTHENSHIRE.—TO BE LET, OR SOLD, several BEAMS OF ANTHRACITE COAL AND IRONSTONE, lying under the FARMS of CLIFREY, NEW INN, ROY, and ROSEFACIL, situated in the parishes of LLANELLY and LLANGENDRIN, in the said county. The SURFACE also will BE DISPOSED OF.—The above property is within a short distance of the Kidwelly Canal, and distant from Pembrey Floating Harbour 5 miles, where the present demand for coal far exceeds the supply.

Further particulars can be obtained on application to Dr. Lawrence, Carmarthen; or to Mr. John Griffiths, Aberystwyth, near Carmarthen.

Carmarthen, Nov. 29, 1847.

COLLIERY TO BE LET, IN SOUTH WALES.—A compact COLLIERY to BE LET, with immediate possession, situated within three miles of the harbour and floating dock at Llanelly, with which it is connected by a public and private railroad from the pit's mouth, intersecting the line of the South Wales Railway, which also passes about a quarter of a mile from the pit. The Spitty Copper-Works, adjoining the pit, at a distance of a few fields length, have been very recently taken by a new company, who are just now commencing operations there. Easy access to these works may be had from the pit, entirely over the land of the owner of the colliery, as may be agreed upon. There are two engines, one of about 40, and the other 10-horse power, for pumping and lifting. The shaft, in depth, is about 40 fathoms, passing through two veins of coal—one of which only has been partially worked, for the purpose of proving the qualities of the coal, which is in high repute, as being excellent for copper-works, steam, smiths, and other purposes. Another (third) vein of coal has been proved, by boring about 18 fms. deeper than the present pit; and there are other veins to be had, at a still greater depth. The engines, plant, &c., to be taken at a given value, or by valuation, as may be agreed upon.—For further particulars, apply (by letter, pre-paid) to Benjamin Jones, Esq., solicitor, Llanelly, Carmarthenshire.

VALUABLE PUMPING AND WINDING ENGINES FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, at WHEAL WYR MINE, in the parish of BREAGE, CORNWALL.—

- 1 60-inch DRAUGHT ENGINE, 10-foot stroke in cylinder, and 8 feet in shaft, main beam and caps, top nozzle, spring piston and rod—all new this year; with four boilers, of 15 tons each, in excellent repair.
- 1 30-inch DITTO, 10 feet stroke in cylinder, 7 feet in shaft, cylinder, piston, bottom and cover, nearly new, with two boilers, of 15 tons each, and three boilers, of 10 tons each, all lately thoroughly repaired.
- 1 40-inch DITTO, 9 feet stroke in cylinder, and 7 feet in shaft, without boilers.
- 1 20-inch WINDING ENGINE, 8 feet stroke, with two boilers, of 4 and 6 tons, and vertical axle, all in complete repair—the boilers and some other parts nearly new.
- 1 18-inch DITTO, 4 ft. stroke, with one boiler, of 5 tons, and horizontal axle, complete.
- Several tons of straight and bent STEAM-PIPES.
- 1 18-inch CAST-IRON STAMPS AXLES, with bearings, oak frames, &c., complete.

A powerful WEIGHING MACHINE, nearly new, comprising every requisite. An immense number of PUMPS, matching-pieces and windbores, 12 to 17-inch bore, with working barrels, doorpieces, H-pieces, cases, with stuffing-boxes and glands to match, from 11 to 19 inches bore, and plunger-poles, from 13 to 19 diameter. Faggoted rod and cap plates, 6, 7, and 8 inches wide, staples and glands, eyerunners, caps, saddles, troughs and gudgeons for balance and other bolts.

Application to be made to Capt. R. Blight, Jun., on the mine.

Dated Nov. 25, 1847.

N.B.—The above are of easy transit to Hayle wharfs, and from thence on ship-board, if required.

TWO WATER-WHEELS FOR SALE.—A WATER-WHEEL, 34 feet diameter, 6-feet breast, with cast-iron rings, flanges, cranks, plunger blocks and braces, the whole of the cast and wrought-iron—making, together, about 9 tons.—The wheel is in excellent condition, and may be viewed at South Devon Cornish Mine, near Ivy-bridge, in the parish of Ugborough, Devon, where it was erected new, about 18 months since.

A WATER-WHEEL, 34-feet diameter, 4-feet breast, with wrought-iron axle, cast-iron flanges, cranks, plunger blocks and braces.—This wheel is in excellent condition, having been erected only 12 months since now; it can be viewed at Eastcombe Mine, Swynbridge, near Barnstaple, Devon.

For particulars of the above, application to Mr. J. E. Mare, Plymouth Foundry, Plymouth, Devon, will have immediate attention.

Plymouth, Nov. 25, 1847.

SUPERIOR STEAM-ENGINE.—TO BE SOLD, a STEAM-ENGINE, of 50-horse cylinder, single-acting, with 11-ton boiler, condensing apparatus, spring beam, and first piece of rod—now at WHEAL GILL, near LISKEARD, Cornwall, where it was erected new in 1846, of stout material, and on the latest and most improved principle; it is perfect, and can be confidently recommended as of first-rate quality and power.—Also, a 30-inch lift of 18-inch PUMPS, with plunger-pole, case, &c., complete, nearly new; 11-inch working barrel, windbore, doorpiece, &c., in good condition, having been but a short time out of use.

Tenders for which, stating the gross sum for the engine, &c., and per cent. for the plunger-lift, working barrel, pumps, &c., will be received by Mr. R. Taylor, the purchaser, on the mine, on or before the 30th inst., to whom application to view may be made.

Approved bills, at two months, will be taken in payment.

Wheal Gill, Dec. 1, 1847.

ON SALE, at the PROVIDENCE MINES, near ST. IVES, a STEAM PUMPING-ENGINE, with boiler, complete—30-inch cylinder, and 6-feet equal beam; a good PLAIN ENGINE, capable of doing good duty.—See *Leam's Reporter*, 1849, 1843, and 1844.

At the NORTH UNITED MINES, near PENZANCE, a STEAM-PUMPING ENGINE, with boiler, complete—30-inch cylinder, 9-foot stroke, and 7-inch the shaft; it is a very superior engine, built by Harvey and Co., in 1846.—Also, at MULPHA HILL, a WATER-WHEEL, 34-feet diameter, and 30-inches above cast-iron axle, centre-piece, and cranks, with brasses, complete.

Apply to the agents at the mine, or Higgs and Son, Penzance.

Dated Oct. 30, 1847.

FOR SALE, BY PRIVATE CONTRACT.—A STEAM PUMPING-ENGINE—cylinder 30-inch diameter, 9-foot stroke, equal beam, with 7-ton boiler, cylinders, spring beam, and first set of rod-shafts attached, being the engine of Wheal St. Clear.—For particulars, apply to Capt. Osborne, Liskeard; Mr. W. G. engineer, St. Blasay; or Mr. Hende, the purser, 13, Octagon, Plymouth.

STEAM TO INDIA VIA EGYPT, MALTA, ITALY, ALEXANDRIA, AND THE PENINSULAR PORTS.

PASSAGE TO BOMBAY, MADRAS, AND CALCUTTA.

The Peninsular and Oriental Steam Navigation Company BOOK PASSENGERS for CEYLON, MADRAS, and CALCUTTA direct, by steamers leaving Southampton on the 30th, and for Alexandria, en route to Bombay, on the 1st of every month.

A steamer from Southampton leaves the 1st and 20th of every month for Malta, whence are steamers to Naples, Genoa, Civita Vecchia, three times a month.

STEAM TO CORUNNA, OPORTO, VIGO, LISBON, CADIZ, AND GIBRALTAR.

A steamer leaves Southampton on the 7th, 17th, and 27th of every month.

Apply at the Peninsular and Oriental Steam Navigation Company's offices, 51, St. Mary Axe, London, where only passages can be secured throughout.

S. W. SILVER & CO., CLOTHIERS, NAVAL, MILITARY, and GENERAL OUTFITTERS and CONTRACTORS, respectfully acquaint the public, that they have completed the alterations at their warehouses,

Nos. 65 and 67, CORNHILL, LONDON,

which enables them to concentrate and exhibit all the requirements of an OUTFITTER. Being the manufacturers (with experienced managers) of the chief and most expensive portions of outfits, they are enabled to produce and render them at WHOLESALE PRICES—thus preventing MILITARY and NAVAL OFFICERS, CADETS, and PASSENGERS generally, sacrificing the usual intermediate profit. LADIES' OUTFITS (which are under the management of females) on similar terms.

SILVER and CO. having a correspondent in nearly every ENGLISH COLONY, their customers may at all times avail themselves of their assistance. Silver and Co. pack and ship their customers' outfit, clear and warehouse their baggage homewards, procure and give SHIP-SAILING information outwards or homewards, without receiving a commission for such business. Moreover, they do not allow the too usual commission to persons who introduce customers to them, that purchasers may derive every fair advantage.

The OUTFITTING WHOLESALE and RETAIL CLOTHING DEPARTMENTS, &c., are at 65 and 67, CORNHILL, and at LIVERPOOL. THE SHIRT DEPARTMENT for home use is at No. 10, CORNHILL. THE WORKSHOPS for clothing, at 41, Bishopsgate-street Within; for SHIRTS and CLOTHING, at 22 and 24, Nassau-place, Commercial-road; for SHIRTS, STAYS, BRACES, &c., at LANDPORT, near Portsmouth.

GAS.—THE NATIONAL ECONOMIC is the only PERFECT

BURNER—the only one in which the principle of perfect combustion is successfully carried out, and which possesses the greatest illuminating power with the least consumption of gas of any burner hitherto invented.—Vide published opinions of Drs. Ure and Bachmoffer, &c. The patentees are desirous that the public and the trade should judge for themselves as to the truth of these assertions, and not be led away by false representations respecting other burners; an experimental meter is, therefore, provided at the office of PAUL & CO., gas engineers, 19, Leather-lane, Holborn, where the most rigid test is invited.—Description, with diagram and testimonials, forwarded free.—CITY DEPOT, Deane's, Monument-yard.

IMPORTANT TO RAILWAY AND STEAM NAVIGATION COMPANIES, MANUFACTURERS, AND ENGINEERS.

W. BROTHERTON AND CO.'S PATENT LUBRICATING FLUID (or Animal Oil) FOR ALL DESCRIPTIONS OF MACHINERY.

W. B. & CO. have the pleasure to state, that the above article is extensively used by Her Majesty's Steam Navy, and by several of the principal Steam Navigation and Railway Companies, and is pronounced by them, and by the first practical engineers of the day, to be far better adapted for the purposes of lubrication than any other article hitherto used for such purposes. The Patent Lubricating Fluid is equally applicable for the most intricate and fine pieces of machinery, as for the heaviest bearings of the steam-engine. It is cheaper, much more economical, and cleaner than oils at present in use; is free from smell, and calculated to effect a vast saving in the expenditure of working steam powers. Further particulars can be had, and testimonials sent, by application to the manufacturers, W. BROTHERTON & CO., Hungerford Wharf, Strand, London.

N.B.—The above article will burn in lamps, and give a light equal to the best sperm oil.

FLEXIBLE HOSE-PIPES FOR LOCOMOTIVE ENGINES, RAILWAY CRANES, FIRE-ENGINES, GAS, &c.

PATENT VULCANISED INDIA-RUBBER HOSE-PIPES AND TUBING OF EVERY DESCRIPTION.

These pipes are made to stand hot-water without injury—are very superior to leather pipes, or the common India-rubber pipes; and, as they do not become hard or stiff in the lowest temperatures, or require any application when out of use, are particularly well adapted for fire-engines.

FLEXIBLE TUBING, of every description, for gas, chemical purposes, &c.

VULCANISED INDIA-RUBBER WASHERS, all sizes, for steam and hot-water joints, &c.—Sole manufacturer, JAMES LYNE HANCOCK, Goswell Lane, Goswell-road, London.

VIADUCTS AND OTHER RAILWAY WORK.—The attention

of Railway Engineers, Architects, and Contractors is particularly directed to the great advantages to be derived from the application of SEYSSSEL ASPHALTE, as the only impervious and permanent covering for arches and roofs, and lining of reservoirs, gutters, &c. The arrangements of CLARIDGE'S PATENT ASPHALTE COMPANY enable it to execute works of any extent with the greatest promptitude.

In order to guard against the use of spurious materials, it is important that all applications for works to be executed by this company; and, as a further protection, it is suggested that Engineers, Architects, and Contractors, should require a CERTIFICATE from the company that the proper description of material has been used.

Information may be obtained as to all works which have been executed by the company since its establishment in 1838, which will prove that the failure of many works represented to have been done with the genuine material has resulted from the substitution of a spurious one.

I. FARRELL, Secretary, Seyssel Asphalt Company, Stangate, London.

PATENT KAMPTULON (OR CAOUTCHOUC AND CORE) MATERIAL.

SCALE OF PRICES.

1 This in feet	Weight of Material per square yard, compared with wood.	Price per square yard.	Purposes to which the Material may be applied.
1-16	"	2s.	Felt for Sheathing under Copper, and in destroying galvanic action between the Copper and iron—See Passage to Lord Chamberlain's Office, House of Lords.
1-8	"	3s.	For placing under Carpets, and as a Floor Cloth for Stairs, Offices, Aisles of Churches, to deaden sound, and prevent noxious effluvia from vaults beneath.—See Passage to Lord Chamberlain's Office, House of Lords.
1-4	9 lbs., or one-third the weight of oak.	4s. 6d.	For Railway Carriages, Buffers, Shields, &c., and to place between Rails and Sleepers, Joists of Iron Bridges, and to use, in all cases, where it is desirable to destroy vibration, and obviate the effects of concussion—used by the South-Western Railway, &c.
1-2	17 lbs., or ditto	10s.	Lining for Floors of Carriages, Horse Boxes, and covering Walls of Riding-Houses, as at the Castle, Windsor.
3-4	37 lbs., or ditto	12s.	Life Boats and other Shipping purposes—used by Mr. Ratsey, of Cowes, on the Gosport and Gosport, of the Royal Victoria Yacht Club, &c.
1	36 lbs., or ditto	10s. 6d.	Lining Rooms and Floors of Lunatic Asylums, as at Dehlem Hospital, Northampton, &c.

For Lining Iron Men-of-War, to ameliorate the effects of Cannon Shot, by retaining the Splinters; and by the Holes simultaneously closing, the Water is kept out, as proved at the Arsenal, Woolwich.

N.B.—Felt for the Inner Soles of Boots and Shoes, at 2s. per dozen pairs. Roof Protectors, lined with Gutta Serena for diseased feet of horses, 2s. 6d. per pair. Elastic Putty, for preventing Cabin Windows, Skylights, &c., being broken by concussion, hail-storms, &c.—Life Boats of Iron Kamptulon, 30s. per foot.

GEORGE WALTER, Co-Proprietor and Manager, FACTORY, GREENWICH-ROAD, where all orders are requested to be sent.

From its lightness it is not more expensive than common putty.

THE PATENT OFFICE AND DESIGNS REGISTRY.

No. 210, STRAND, LONDON.

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPBELL and CO. offer their services, and the benefit of many years' experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due regard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents or otherwise, by a staff of first-rate draftsmen.

Apply, verbally, or by letter, to F. W. Campbell and Co., No. 210, Strand (corner of the Strand and the Strand).

TO COAL MERCHANTS.—The COMMITTEE OF

MANAGEMENT of the WEST WHEAL MARIA MINE are desirous of CONTRACTING with persons willing to SUPPLY this MINE with good STEAM COALS, for four months, to be delivered at Gawton, Morwellham, or New Quay, on the banks of the Tamar, Devon.—Tenders, stating price per ton, to be sent free, to Mr. Davis, auctioneer, Tavistock.

County Fire and Provident Life Office, West-street, Tavistock.

TO ENGINEERS, COMPANIES, &c.—A PRACTICAL

ENGINEER, who is a good draughtsman, and competent to design and superintend the construction of land and marine work, is desirous of OBTAINING EMPLOYMENT, either as DRAUGHTSMAN or as SUPERINTENDENT OF MACHINERY.

Address, "S. C.," Mr. Cole's, 92, Gracechurch-street, London.

TO MANUFACTURERS OR ENGINEERS.—An ENGI-

NEER, who has had considerable experience, wishes to obtain EMPLOYMENT, to CARRY OUT any PATENTED IMPROVEMENT, or to SUPERINTEND ITS MANUFACTURE; he has also an important improvement in connection with the steam-engine—being an extremely simple apparatus, by which the water, in either high or low pressure boilers, is always maintained at one level, preventing all chance of explosion from shortness of water.—All letters to be addressed to E. Whitley Baker, care of "The Editor of the Mining Journal," 26, Fleet-street, London.

WANTED.—A CORNISH PUMPING-ENGINE, either

NEW or SECOND HAND, in good condition, with cylinder, from 30 to 90 inches diameter; likewise, about TWO HUNDRED and FIFTY YARDS of PUMPS, 18 to 22 inches diameter.—Address, stating particulars, Mr. John Lancaster, Mostyn Colliery, near Holywell.

WANTED, upon a LINE of RAILWAY, in the SOUTH, in length about 160 miles, a good HEAD INSPECTOR of WAY and WORKS.—No one need apply who has not held a similar situation elsewhere, and is not competent to undertake the checking of contractors' accounts.—Address, stating terms and full particulars, to Mr. R. J. Hood, C.E., Brighton.

COLLIERY MANAGER WANTED.—A GENTLEMAN, of

active mercantile habits, who has the command of £1000 to £2000, to invest as surety (either as partner or otherwise), is WANTED, to MANAGE the COMMERCIAL DEPARTMENT of a COLLIERY. Salary £200 per annum.—Address "H. B.," care of the Editor of the Mining Journal, 26, Fleet-street, London.—Nov. 29, 1847.

CAMERON'S STEAM COAL MINE AND RAILWAY.

—paying 12½ per cent.—FOR SALE, ONE HUNDRED SHARES, on advantageous terms.—Apply to Mr. Price, 3, Royal Exchange Buildings, London.

MINING SHARES FOR SALE.—THIRTY ORIGINAL

and TWELVE ALLOTTED, SHARES in the WHEAL CURTIS COPPER MINE. Price, £25.—Apply to Mr. C. Drake, Bungay, Suffolk.

WILSON & FRASER, 2, WELLINGTON-BUILDINGS,

LIVERPOOL, and 13, EXCHANGE-PLACE, GLASGOW, have always ON SALE FIG-IRON, BAR-IRON, RAILWAY CHAIRS, and RAILWAY BARS.

MR. R. TREDINNICK, THREE KING'S COURT,

LOMBARD-STREET, LONDON.

Continues to DEAL in every description of MINING, RAILWAY, BANKING, INSURANCE, CANAL, and OTHER SHARES.—Statistical information afforded gratuitously upon personal application.—MONEY ADVANCED upon the above securities.

JAMES LANE, MINING SHARE DEALER,

75, OLD BROAD-STREET, LONDON.

BRITISH MINING OFFICES, No. 12, HAYMARKET,

And No. 41, MOORGATE-STREET, LONDON.

And No. 4, STAMP-OFFICE BUILDINGS, MANCHESTER.

At either of which places PROSPECTUSES and SHARES in the various SILVER-LEAD and COPPER MINES connected with these offices, may be obtained.

T. H. TAYLOR, London.

W. SHARMAN, Manchester.

CROKER, CLEMENT, & CO., CUSTOM-HOUSE, SHIP

STOCK, and SHARE BROKERS, AUCTIONEERS and APPRAISERS.

ACCOUNTANTS, HOUSE, ESTATE, and GENERAL COMMISSION AGENTS.

No. 33, WHIMPLE-STREET, PLYMOUTH.

(Next door to the Naval Bank.)

PLYMOUTH WHEAL YEOLAND, and PLYMOUTH WHEAL YEOLAND EAST-MINING OFFICES.

MONEY.—MESSRS. WINSTANLEY & CO., Sharebrokers,

inform their friends and the public, they make IMMEDIATE ADVANCES, to any amount, on the deposit of English and Foreign Railway Shares, Scrip, and Debentures, upon exceedingly advantageous terms; they also BUY and SELL every description of STOCK and MINING SHARES, at much less commission than usually charged.

6, Bank Chambers, opposite the Bank of England.

TO MINE AGENTS, MINE SURVEYORS, &c.—

MATHEMATICAL, PHILOSOPHICAL, AND OPTICAL INSTRUMENT MAKER.

ST. BAY, CORNWALL.

Begs to call the attention of MINE AGENTS and SURVEYORS to his MINER'S THEODOLITE, and other IMPROVED INSTRUMENTS, adapted to MINE SURVEYING; and to assure them, that, from many years' constant application of his energies in one of the most active mining districts to this particular branch of mathematical instrument making, he flatters himself he is able to furnish instruments, equal in point of accuracy and workmanship, and superior as regards adaptation to the wants of the miner, to those supplied by almost any other house.

As a descriptive price list sent free per post, on application.

AUSTRALIAN MINING COMPANY, 1, Adelaide-place,

London-bridge, Nov. 22, 1847.—The board of directors hereby give Notice, that an EXTRAORDINARY GENERAL MEETING of the shareholders will be HELD at the company's offices, 1, Adelaide-place, London-bridge, on Monday, the 18th day of December next, at Twelve o'clock precisely, to receive the directors' report on the present condition of the company, and to fill up the vacancies occasioned in the direction, by the resignation of Sir Hyde Parker, Bart., and the decease of Samuel James Cooper, Esq.

G. E. HODGKINSON, Secretary.

BEDFORD UNITED MINING COMPANY.—The directors

of the BEDFORD UNITED MINING COMPANY hereby give Notice, that a SPECIAL GENERAL MEETING of the shareholders will be HELD at the offices of the company, 51, Old Broad-street, on Thursday, the 9th Dec. next, at Twelve o'clock precisely, to consider the propriety of altering the present constitution of the company, and substituting the "Cost-book" System for it.

London, Nov. 16, 1847.

MERIONETHSHIRE SLATE & SLATE SLAB COMPANY.

—Notice is hereby given, that all SHARES in this company, upon which the CALL of 10s. per share, made on the 4th day of April last, be NOT PAID into the Commercial Bank of London, Lothbury, on or before the 18th day of December next, will be considered FORFEITED, and disposed of pursuant to the terms of the Deed of Settlement.

5, Walbrook, London, Nov. 30, 1847.

MERIONETHSHIRE SLATE & SLATE SLAB COMPANY.

—Notice is hereby given, that the TIME for PAYMENT of the CALL, made on the 12th of July last, is EXTENDED, and that the same must be PAID into the Commercial Bank of London, Lothbury, on or before the 1st day of January next; or, in default thereof, the shares are liable to forfeiture, pursuant to the provisions contained in the Deed of Settlement.

5, Walbrook, London, Nov. 30, 1847.

NATIONAL BRAZILIAN MINING ASSOCIATION.—

Notice is hereby given, that, after Wednesday, the 8th Dec. 1847, NO MONEY will be RECEIVED on account of the FOURTH and LAST INSTALLMENT of £1 per share.

By order, JOHN KEMPESTON, Jun., Secretary.

26, Throgmorton-street, Nov. 27, 1847.

PATENT GALVANISED IRON AND WIRE ROPE WORKS,

MILL WALL, POPLAR.

ANDREW SMITH begs to inform the Mining, Railway, and Shipping interests, that he has obtained a PATENT for an IMPROVED METHOD of GALVANISING IRON, producing a much superior article at a considerable saving in cost—the improved process for galvanising wire rope, adding 50 per cent. instead of £20, under the ordinary process. The rope is extensively used in deep descenders, for mining and railway purposes, and for ships' standing rigging.

ADCOCK'S PATENT SPRAY PUMP.—This important

INVENTION having been PERFECTED, and brought into SUCCESSFUL PRACTICAL OPERATION at LLANRHIDDEL, at pits belonging to R. J. Blount, Esq., M.P., Llantarnam Abbey, near Newport, Monmouthshire, the PATENT is ready to RECEIVE, and to execute, ORDERS.—Apply to Henry Adcock, C.E., at

may be had the Illness & Friend.

commercial department above ground was called "the *juicer*." The next in importance was the "overman," whose duty it was to execute the plans of the head-tower, under the

irregularity. When a casting of such a description is submerged, not only are the softer portions first corroded, but those which are harder themselves assist in the operation.

Windsor; J. B. Shillock, Bromley; T. Meehan, London-street, Greenwich; T. Parker, Woolwich; Edie and Co., Dorking; and John Thurlby, High street, Romford—of whom we had the most kind

Windsor; J. B. Shillock, Bromley; T. Niches, London-street, Greenwich; T. Parkes, Woolwich; Edie and Co., Dorking; and John Thurlby, High street, Romford—of whom

Windsor; J. B. Shillock, Bromley; T. Niches, London-street, Greenwich; T. Parkes, Woolwich; Edie and Co., Dorking; and John Thurlby, High street, Romford—of whom

[To be continued in next week's Mining Journal.]

Nov. 24.—T. WEBSTER, Esq., M.A. (Vice-President), in the chair.

The fourth paper read was by Messrs. Brett and Little, on their method of forming a similar communication.—In this plan, as in Mr. Allen's, it is proposed to use an electric current—the circuit of which is to be completed by means of wires and chains, but is to act only when the circuit is complete, when a bell is rung.

To the RT. HON. LORD DENMAN, Lord Chief Justice of Her Majesty's Court of Queen's Bench

IMPROVEMENTS IN THE MANUFACTURE OF GAS.

RAILWAY LEGISLATION.

THE SUBMERGED PROPELLER—(*From a Correspondent*).—A brief descrip-

Mining Correspondence.

EAST CROWDALE MINE.—Having inspected the above-named mine, to offer a few remarks relative to the past proceedings, present prospects, and the mode in which I should recommend the future prosecution, in the most judicious and systematic manner, and from which I think beneficial results are likely to accrue. Taking a minute survey of the work done at the surface at Rix Hill, in costeaning, &c., I think sufficient ground has been opened, to show clearly that there are several lodes near each other, although in a confused state, in consequence of a convulsion of nature in that locality; however, where the ground is more compact, as is the case at the summit, and about the centre of the sett, a more promising and regular lode is rarely to be seen, possessing every characteristic of mineral, with very corresponding walls, inclining south on an angle of 24 degrees, which I conceive to be an underlay such the same as many other lodes in the neighbourhood, that have been very productive of minerals; therefore, the proper step has been taken to prove whether the lodes are continuous, and which lode it will be most advisable to prosecute more vigorously, as a main working, to command all. An adit level has been driven in a south-west direction, about 60 fms., where it intersected the north lode, 12 fms. deep; on intersection, it is much larger than when opened on at surface, as it is a little more perpendicular than before alluded to. I consider it a good indication, and it is master of the strata it passes through; its component parts are peach, quartz, and mandic, interspersed with very fine tin ore, from 3 to 4 ft. wide. Since cut, the adit has been continued some 12 or 12 fms. west on its course—still presenting similar appearances, and inclining to do so at that level, especially from the improved state in the shaft opening under the adit (about 3 fms.), where it is near 6 ft. wide, producing more and also a white prism (which is a matrix congenial for tin ore in this alloy), dividing the heads, or joints, in the lode, commonly called "slides," "brass heads." With such appearances, I should recommend the sinking the shaft on the lode 10 or 12 fms. below the adit level, which, I believe, will be practicable, without the aid of machinery; then you can extend the level west, to meet any shaft you may sink in the centre of the sett; it will serve the lode, and serve for ventilation, as well as for extracting the ore, as there is very little doubt of its being productive of large quantities, judging from the indications already seen, and from the tin ore now at surface; and finally, there is every probable expectation of improvement as you progress. I should also continue the cross-cut south, till you cut the south lode, which, I think, 6 fms. south of the other, that being about the distance in every place we have seen them opened on; then you can determine which lode it will be most expedient to drive the adit level on, and cross-cut to the other, as circumstances and opinion may dictate, not believing for a moment it would be prudent to prove the two levels parallel at that shallow depth. It is also necessary to provide some sort of machinery for cleaning the tin ore already broken, and still making; either erect a wheel, and attach stamps, and pump water with the main engine to supply it, or otherwise erect a small engine for the purpose of stamping, and drawing the water to condense with, and dressing the tin on the spot, to avoid the great expense of carriage work from the shaft to where the wheel must be placed, so as to allow your present engine to be brought to the surface. An engine of 24-inch cylinder will be the most powerful and beneficial auxiliary in my opinion, although it will cost more in the first outlay; but there will be many expenses in getting up wheel, pumps, rods, &c., which

must be considered in the outlay of a small steam-engine. However, these are hints I merely throw out for your consideration, as circumstances, and the opinion of your own agent (to be consulted with), must decide which would be most suitable to apply—your agent being quite capable of forming a correct idea, having an opportunity, as he has had, to calculate for your interests which course it would be most prudent for you to adopt. And further allow me to add, every thing that has been done, at surface and underground, is judiciously and economically laid out, not only for the present, but for the future prosecution of the mine, in a systematical and miner-like manner. At the steam-engine shaft, I was not exactly satisfied on the day of inspection (Nov. 11), that the lode in the 47 fm. level was cut through, as killas might divide it, or the ore part inclining fast east; however, these are matters soon to be proved, therefore I should recommend the extension east, more particularly on its course, to ascertain the result, as I have strong incentives of its being productive, in consequence of its regularity when it passed through the shaft, and the production of such large rocks of copper ore, of excellent quality, very similar to what I have seen and broken in the West Crowndale lode, at Crebor, Liscombe, and other mines west of East Crowndale Mine; which mines, collectively, have produced many hundred thousand pounds worth of copper ore in a short distance, leaving immense profits to the adventurers. As there is an alteration in the ground under the lode alluded to in the 47 fm. level, should strongly recommend you to sink the steam-engine shaft 10 fathoms deeper, before you cross-cut south to the other lode, as the sinking the shaft will not occupy more time than driving the cross-cut in that level, and you would considerably shorten it in the 57 or 60, the killas being of a softer nature; so that the expense, in my opinion, would not be more, only in pumps and available property, and would give it a more satisfactory trial at once, knowing, as I do, the south lode was a very productive one in the 10, 20, and 30 fm. levels; but many untoward circumstances, which I am in possession of, prevented its being carried out in that day in so masterly a manner as you have commenced operations; believing, if prosecuted with the degree of vigour such prospects deserve, ultimate success must be the result.—J. CARPENTER: Nov. 11.

P.S.—In addition to the foregoing, I inspected Rix Hill on the 17th. I saw the lode which I expected near, or within 5 fms. of, the north one. I thought, at that moment, it was either a part of the north lode strayed south, or the north part of the south lode being flat to where I have seen it before, although its properties are just the same, and good stones of tin throughout; therefore Captain Paul and myself agreed to continue further south, to prove it properly.—J. C.

—We have commenced sinking the engine-shaft below the 47 fm. level; the ground is killas, intermixed with spar; the lode in the same level east is poor, but getting into a more settled state, and is about 2 ft. wide, composed of capel, spar, killas, mudiic, and good stones of ore at times; from its getting more regular, I hope we shall soon meet with a bunch of ore. The lode in the shaft sinking below the adit level, on the north lode, at Rix Hill, is still rather disordered, with floors of killas, and is about 5 ft. wide, composed of killas, peach, mudiic, and tin. The ground in the cross-cut driving south, in the adit level, Rix Hill, continues favourable for driving, the ground is killas, intermixed with floors of spar. The lode in the adit level west, at Rix Hill, is very much improved in appearance since my last report; there has been a great quantity of mudiic in the lode, which is wearing out, and a good lode of tin is no doubt near; we have broken some excellent work to-day; the lode is upwards of 2 ft. wide, composed of peach, capel, spar, mudiic, and tin.—Nov. 27.

GREAT MICHELL CONSOLS.—The lode in the sump winze continues 5 ft. wide, composed of spar, mudiic, peach, and ore, producing some saving work. In the 35 fathom level, west of the sump winze, the part of the lode being carried as 3 ft. wide, containing mudiic and spar, with grey, black, and yellow ore—opening tribute ground. The parcel of ore to be sampled next Monday week will be about 50 tons.—Nov. 30.

GREAT WHEAL ROBERT.—We have holed the winze, after a great deal of trouble, with bad air. Sickness amongst the men was another cause of the delay. Those difficulties are got over, and the mine is in a good way of working, and well ventilated. In my former report, I made mention of the ore dipping east from the cleavage, and more frequently we find copper dip east. Here I find the dip of the ore is west, and comes to a point going east. We shall now recommence driving the 15 fm. level west, where I expect to have a good bunch of ore after driving a few fathoms—price for driving, 4l. per fm., worth 2l. per fm., with every indication of the lode improving; we have commenced stopping west from the winze, not in the best part of the bunch; as we stop down the lode improves—price for stopping, 50s. per fm., lode worth 9l. per fm. A great many pounds having been spent in securing the crushed ground in the old adit—we shall now abandon that part of the mine, as it will be of no service to us, except carry off the surface water.—Nov. 30.

HOLMBUSH.—The ground in the 132 fm. level, south of the diagonal shaft is still favourable. The ground in the 120 fm. level, west of the great cross-course, and south-west of the slide, is not so hard as when last reported; we have 2 fms. further to drive south, to intersect the caunter part of the copper lode, here by the slide, in that direction; and then 4 fms. to drive west, to intersect the lead lode; in the 120, south of the old level, and east of great cross-course, we have intersected another small branch, 6 in. wide, composed of spar, mudiic, and spots of ore; we have commenced driving west on the first or main part of the lode, which is 18 in. wide, producing 3 tons of ore per fathom; we have about 6 ft. to drive west to reach the cross-course; after this is accomplished, we shall drive east on the same part; the lode in the tribute pitch, above this level, will also produce about 3 tons of ore per fathom; the ground in the 120 fm. level, south, east of Hitchins's shaft, is hard. The lode in the 110 fm. level south is 2 ft. wide, composed of soft spar, flookan, and stones of lead, worth 5l. per fm. The lode in the 100 fm. level south is 4 ft. wide, composed of quartz, blende, and stones of rich silver-lead ore scattered through the lode, worth 5l. per fm.; one of the tribute pitches, in the back of this level, is still yielding a fair quantity of lead ore; the other tribute pitches are not so productive. The lode in the 90 fm. level south is 20 in. wide, composed of flookan and spots of lead. We sampled, on Friday last, at Calstock Quay, October and November ores, computed 86 tons.—Nov. 30.

KIRKCUDBRIGHTSHIRE.—The lode in the 50 fm. level end west is 4 ft. wide, yielding about one-third of a ton of lead per fm.—set to 6 men, at 3l. 10s. per fm., and 20s. a ton for saving lead. The lode in the 40 fm. end west is 3 ft. wide, with stones of lead—set to six men, at 3l. 15s. per fm. The lode in the 30 fm. end west is 4 to 5 ft. wide, yielding stones of lead—set to six men, at 4l. per fm., and 20s. per ton tribute. The lode in the 20 fm. end west is 3 ft. wide, a kindly end, but without lead—set to six men, at 3l. 5s. per fm., and 20s. per ton tribute. The winze sinking under the 40 fm. level is in a large lode, from 8 to 10 ft. wide, producing one ton of lead per fm.—set to six men, at 4l. per fm., and 20s. per ton tribute. The lode in Keith's shaft is 9 ft. wide, producing some fine stones of lead. The following pitches are also set on tribute until next setting day—viz.: one in back of the 40, at 3l. 10s. per ton; one in back of the 30, at 4l. per ton; and one in bottom of ditto, at 3l. per ton.

LAMHEROEE WHEAL MARIA.—I am happy to tell you that we have at last cut the K lode; we have gone through three branches, all underlying into the K; you will be glad to hear that it is a fine champion looking lode, and, as far as we have been able to see, it is ore; but, until we have got the water in fork, we cannot see enough of it to speak positively as to its value. When the lode was cut, the water completely drowned the men—so that they were obliged to run. One great thing, as indicating the lode containing ore is, that the water is quite warm. Capt. Tabb will write in a few days.—Dec. 1.

LOSTWITHIEL CONSOLS.—The shaft is sunk 22 fms.; the ground still hard, and set at 20l. per fm. We have fixed a standing lift, and constructed a dam 14 fms. below the adit, and hope now to prosecute the sinking without further hindrance. We have also cut a plat, by which the cost of hauling is reduced. The level on the caunter is extended 88 fms.—no change in the lode of late. Capt. Eustace has opened the lode in the bottom of the level, with a view to ascertain whether it would be practicable to sink a winze on the lode—it is very watery; the vein in the centre of the lode, going down, is about 7 in. wide, gossan and ore. Could it be sunk upon 10 fms., it would probably pay cost, and perhaps make a profit at that depth.—Nov. 24.

MENDIP HILLS.—In the 38 fm. level, south of the shaft, the lode is not quite so large as when last reported on, being divided in two parts—the main branch being about 1 ft. 6 in. wide, composed of flookan and spar, with a little water issuing from different parts of it; in the north of the shaft, in the same level, we are at present extending the end on the foot wall part of the lode, which is chiefly composed of white flookan and soft spar—ground easy for driving, price 30s. per fm.; in the branch, opening across the upper part of the slag ground, we have, during the past week, been engaged removing the top rubbish from off a large bed of slag, of coarse quality. The masons are employed about the necessary brickwork, for conveying the wind from the fan to the different furnaces, and building the deposit chambers. We are also pressing forward, as fast as possible, with the tram-road.—Nov. 29.

SOUTH WHEAL TRELAWNEY.—The engine-shaft is sunk 19 fms. below the adit level, the ground in which is still a favourable light blue killas strata; the former contract for sinking being now completed, we have this day set the shaftmen a new contract, to continue to sink the engine-shaft, and make it all complete, by dividing and casing it to the 30 fm. level (below adit), at 15l. per fm.; the quantity of water we have in the shaft is just as it has been for several weeks past. We are also engaged in fixing a balance-bob at surface, and the shaftmen in fixing lift, &c., which will occupy a couple of days in next week to accomplish; after which, we shall resume the sinking with nine men, as heretofore, from Monday morning until Saturday night late.—Nov. 27.

TAMAR SILVER-LEAD.—In the engine-shaft the lode is 18 inches wide, saving work. In the 160 end, south of the shaft, the lode is 2 ft. wide, composed of horn spar and ore, but not rich for the latter; in the same level north no lode has been broken since last report. In the 145 end south the lode is 9 ft. wide, 1 ft. of which is good saving work; in the same level north the lode is unproductive. In the 135 end the lode is 3 ft. wide, composed of can and ore, coarse in quality. In the 125 end the lode is 1 ft. wide, chiefly composed

of can, with branches of silver-lead ore. In the 60 end the lode is poor at present. Our tributaries are working with good spirit, and most of them are making fair wages.—Nov. 22.

TRELEIGH CONSOLS.—Christie's shaft, below the 110 fm. level, sinking in the country; in the same level, east of this shaft, the lode is 18 in. wide—worth 5l. per fm.; this is driven on the cross-course; 1 fm. 3 ft. driven on the lode in an easterly direction; the same level west is suspended; the branch in this end is small at present, and without mineral. Garden's shaft, below the 100, sinking in the country—the ground hard. In the rise above the 100 east, the lode is about 2 ft. wide, but very little mineral. The driving in the 100 fm. level is suspended, until the rise is holed; in the same level, west of ditto, we shall drive south; the lode is very large in this end, and we are desirous to see the south wall of it; we have occasional stones of ore. In the 90, west of ditto, the lode is 20 in. wide—worth about 7l. per fm.; in the winze below this level east, the lode is 2 ft. wide, producing stones of ore only. In the 60, west of ditto, the lode is 2 ft. wide, with stones of ore. In the 70, west of ditto, the lode is 10 in. wide, without mineral; we have sunk and holed in the winze below this level. In the winze below the 60 west, the lode is 20 in. wide, with stones of ore, not to value. Driving in the 60 end is suspended, until the winze is holed. The engine-shaft for Wheal Parent is sinking in the country. The adit cross-cut north is driving towards the engine-shaft. Sinking whim shaft below adit—captain's price, 5l. per fm.; the lode is 2 ft. wide, with a promising appearance, with mudiic, spar, and stones of ore. In Lockett's shaft, below the 10 fm. level, the lode is 14 in. wide, with stones of ore; this is on the main lode, about 100 fms. west of Garden's shaft, and will be found a useful shaft, as it will ventilate the western levels, and take off great expense in wheeling, &c.—Nov. 26.

WEST WHEAL JEWEL.—In the 57 fm. level, west of Williams's cross-course, on Wheal Jewel lode, lode 1 ft. wide, worth 6l. per fm.; ditto east, on same lode, lode 15 in. wide, worth 6l. per fm. The men at the 80 fm. level are still driving south. The 20 fm. level, west of Quarry shaft, on Tolcarne tin lode, lode 1 ft. wide, worth 10l. per fm. In the adit, west of Quarry shaft, on the same lode, lode 15 in. wide, worth 9l. per fm. In the shallow adit end, west of Quarry shaft, on the same lode, lode 9 in. wide, producing little tin. The stopes in the bottom of the adit, east of Pryor's winze, on the same lode, lode 6 ft. wide, worth 50l. per fm. The stopes, in the back of the 12 fm. level, west of Pryor's winze, lode 3 ft. wide, worth 25l. per fm.—Nov. 27.

WEST WHEAL MARIA.—We set our engine to work yesterday, and it works very well indeed. In the western engine-shaft, the water is drained 15 fms. below the adit level, and we hope, by the end of this week, to see the bottom of the 64 fm. level. In the eastern engine-shaft, the water is drained to the back of the 88 fm. level, in which we hope to see the water forked, and the men resume sinking this shaft by Thursday morning next.—Nov. 30.

WHEAL ADAMS.—The rise in the 50 fm. level having been communicated with the winze in the 40, we have cut through the eastern lode further south, where it is worth 11l. per fm. Nothing has been done on the quartzose lode, between the 40 and 50, during the past week, as both parts could not be advantageously worked at one time; as soon, however, as the men working in the eastern part are advanced, the stoping will be resumed. The jack lode does not produce sufficient brown blende to pay for working it; we have, therefore, suspended operations on this part. The lode in the 18 fm. level is more quartzose at present, and is, consequently, of not much value; but this, we suppose, will be removed in the course of a few days. The pitches are producing a fair quantity of lead ore; and everything in our power is being done to prepare it for market with the greatest expedition. 80 tons of lead were sold on Thursday, 2d inst., at 10l. 10s. per ton.—Nov. 30.

WHEAL BENNY.—I will send a box of specimens of the Wheal Benny lode in the course of a day or two. This is not the Ford lode, but a lode, or branch, we passed through in sinking about 11 fms. from surface, and have got it now in the 20 fm. level, from 4 ft. to 5 ft. wide—a strong lode; and must impress on the minds of the gentlemen of the committee, to have the shaft sunk as deep as the 30 fm. level, which will take us four months—in the mean time, to keep on the cross-cut in the 20, to intersect the Ford lode.—Dec. 1.

WHEAL CURTIS.—To-day being the monthly setting, I beg leave to hand you a report of the same. Fegan's engine-shaft, sinking below the 20 fm. level, is in harder ground than formerly; but, from the general nature of the ground in this quarter, we may reasonably expect that it will not long continue so; set 3 fms., at 18l. per fm. Evans's shaft is 12 fms. below surface; we hope to hole the same to adit in the first week in December. Immediately after, we shall sink on the Charlotte lode, below adit, where there is every prospect of breaking copper ore, and confidently hope for a productive lode in this part of the mine, judging from present appearances. John's shaft, on the Curtis lode, is set to clear up to bottom, which is effectually drained. In sinking this shaft by the former company, they were driven away by the water, leaving a good lode for copper ore, considering its depth from adit—about 10 fms.—The 30 fm. level, west of Crata's flat-rad shaft, is being cleared; and in a few days we intend to commence driving this level west, towards Fegan's engine-shaft. The 20 fm. level, east of Teague's shaft, is cleared to end, in which there is a part of the east and west lode intersected; but we consider the principal part is still to cut; and as no lode has been taken down for the last 3 fms., we have set to cross-cut through the lode, in the present 20 fm. level end east. I consider since our last setting day, for the number of men employed, a fair quantity of work has been done; and I have no doubt but Wheal Curtis will ultimately prove a productive and lasting mine. For the present, we do not think it advisable to do anything on the lead lode, but will shortly turn our attention towards it.—Nov. 27.—The 30 fm. level, west of Crata's shaft, is cleared to end (74 fms.), leaving 26 fms. to drive to John's shaft, which we intend to set to-morrow, when Capt. Richards will attend for that purpose. The water in Fegan's shaft is increased, but we are preparing a lift of small pumps, to drain the same by the power of the engine.—Dec. 1.

WHEAL TRELAWNEY.—The ground in Phillip's shaft is much as it has been. The lode in the 52 fm. level north is worth 14l. per fm.; this level south is of similar value, and the stopes in the back of this level are similar to the last report. The lode in the 42 stopes is worth 3l. per fm.; in this level north, it is worth 8l. per fm.; the stopes in this level are not much altered. The rise near the 32 end north is holed to the winze under the 22; we have resumed driving the end, where the lode is worth 6l. per fm.; the stopes in the back and winze sinking below this level, are not much changed since my last report. The ground in Trelawney's shaft, sinking under the 42, is favourable. The 22 cross-cut, towards the lode, is progressing satisfactorily. In driving the 22 cross-cut, east from Trelawneys, we are in a compact killas. I cannot speak of any change at Vivian's. We sampled yesterday, at St. Gorman's, a parcel of lead ore—computed 75 tons, which will be sold on the 7th proximo, when you shall know the result.—Nov. 30.

BIRCH TORR MINING COMPANY.

At a meeting of shareholders, held at the offices, on Wednesday, the 24th November, JOHN BAYLY, Esq., in the chair, the accounts to the end of October were examined and passed, showing balance of assets over liabilities 54l. to which may be added, working materials on the mine, 900l.; available surface work, leads, roads, floors, buildings, &c., 1000l.; adit levels east, anticipated profits, 600l.; Vitrifer adit, available work, 2800l.; together 5354l.—It was then resolved, that the workings at the bottom of the mine be for the present suspended; that the number of shares be increased to 1244, to be held ratably by the adventurers; that a call of 30s. per share, on the number of shares, be made payable by three monthly instalments. Rules for the future regulation of the mine were presented, when it was further resolved, that the foregoing resolutions be printed and circulated among the shareholders, and that the meeting be adjourned to the 1st of December. The following report from Capt. Edwards was read to the meeting:—"The 74 fm. level west having passed through a small shoot of tin, and the end having again become poor, and as the winter is now setting in, I propose the suspension of the bottom part of the mine, and to confine our operations to the ground above the adit level in the eastern hill. In the deep adit, the lode is worth 8l. per fathom, and in the shallow adit, the lode is worth 7l. per fathom, and as the latter level has passed through ground of about the same quality for about 40 fms. in length, and as it is still laying open backs about 12 fms. high, and as the hill rises before us about one in four, we may fairly calculate on having a profitable piece of ground before us here. I think the ground already laid open between the deep and shallow levels, likely to give a profit of 600l. Although I have a very high opinion of the Vitrifer lode, I should not recommend the resuming it before the spring of the next year; but I should then propose its being prosecuted with vigour, when I hope the funds for doing so will be provided from the profits of the other parts of the mine. The call of 1l. 10s. per share on 1244 shares now made, will put the finances of the company in a good position."

PLYMOUTH WHEAL YEOLAND MINING COMPANY.

At a two-monthly meeting of adventurers, held on the 25th November, the accounts were examined and passed, showing balance due the 23d September, 412l. 18s. 1d.—Cost for September and October, 347l. 17s. 2d.—leaving balance in favour of the mine of 65l. 6s. 11d. The following report from Captain Edwards was read:—"Since our last two-monthly meeting, the north adit has been driven about 6 fathoms, and has produced some good stones of tin. The shaft on the south adit has been communicated, and the driving resumed. The sinking of the engine-shaft on the south lode has been suspended, in consequence of the great influx of water, and the men have been removed to cut the bob-pit, &c. In doing this latter work, we have discovered a slide, with a northerly dip of about one foot in a fathom; this slide was seen in sinking the shaft, but it was so indistinctly defined here, that it was thought to be nothing more than a disordered spot in the lode; it is very clearly traceable now, both in the bob-pit, and in a piece which is opened five fathoms long to the west of the bob-pit; this was the cause of our not being able to trace the lode immediately westward from the engine-shaft, although it was discovered at about

150 fathoms west. The lode is seen going back under it very regularly; but as the slide crops out to the surface westward, the back is cut off; and our shoe pits not having been put deep enough to pass through the slide, accounts for our not having before been able to cut the lode. We have now a piece of lode laid open 16 fathoms long, the appearance of which, both in the ends and bottom, is highly satisfactory. We have sold two tons of tin, at 44l. 7s. 6d. per ton; and, I am informed, the metal is the best quality in the county. We are now preparing another parcel of tin for sale, and hope to have upwards of two tons ready in a month from the date of the last sale (23d Nov.). We have a large quantity of tinstuff on the surface, waiting for the new stamps, worth upwards of 800l. Mr. Mare has nearly completed the engine fit for delivery, and I expect the engine-house will be covered in by Tuesday next; and by Monday, the 6th December, we shall be in order to begin fixing the engine."

TREVEAN MINING COMPANY.

A meeting of adventurers was held at the offices, Great Winchester-street, on Wednesday, the 18th inst.

JOHN MOLLERT, Esq., in the chair.

A statement of accounts was presented, showing amount received by calls, 288l.; by sales of tin in August, 120l. 1s.; in Sept., 99l. 19s. 6d.—600l. 0s. 6d.—By balance due, 21st Sept., 172l. 5s. 6d.; by August cost, 184l. 3s.; Sept. cost, 166l. 17s.—leaving balance in favour of mine, 26l. 14s. 11d.—The accounts were passed, and a call of 1l. per share made.—Mr. R. B. Michell having tendered his resignation as purser of the mine, it was resolved, that Capt. H. Hensley be the future purser, at a salary of 6l. 5s. per month.

The report of Capt. Thomas Richards, who had been requested to inspect the mine, having been read, and deemed satisfactory, Capt. Hensley's, to the 29th November, was read, showing the mine to be in an improving state for tin, the quality being better, and the appearances generally throughout the mine were encouraging. The operations in progress for developing the silver lode were progressing, and the length of the lode, as described by Mr. Cox, being 34 fathoms to the east, and 5 fathoms to the west opened upon, it was deemed advisable to suspend its further driving, till such time as the buildings were ready to receive the gossan, which continues in appearance and breadth, as well as quality, quite as good as at first, with every prospect of a continuance; and it is fully expected a quantity will be ready for sale in a short time. A gossan lode, 8 feet wide, was cut in Cox's shaft on the 29th.

TROWAN CONSOLS MINE.

At a quarterly meeting of adventurers, held at the mine, on the 23d Nov.—N. HARVEY, Esq., in the chair—the accounts were examined and passed, from which it appeared, that the costs and merchants' bills for July, August, and Sept., were 287l. 9s. 11d.; tin sold, 423l. 12s. 0d.; leaving balance in favour of the adventurers of 186l. 2s. 2d. It was resolved, that the purser be authorized to employ a solicitor, to write to adventurers in arrears of calls, made in Nov., 1846, and Feb., 1847, and, if necessary, bring them into the Stannary Court; and that the other adventurers, who have not paid the last two calls, be requested to pay the same to the purser immediately—that a copy of these resolutions be sent to Mr. G. B. Bocawen, and that he be kindly requested to call upon the adventurers in London; for the payment of their calls. The following report, from Capt. Penberthy, was read to the meeting:—"The mine is, as yet, quite in infancy, being only 25 fms. below the surface. You will perceive, by Mr. Kenrick's statement of the account, what has been the pecuniary result of the last three months, rendering it unnecessary for me to detail it. From the present prospects, we shall realise an equal amount for the present three months. I have much pleasure in stating that, during my 86 years' experience in mining, I have not seen a lode so valuable at the above depth."

WHEAL CONCORD MINING COMPANY.

An adjourned special general meeting of shareholders was held at the offices, 4, King-street, Cheap-side, on Wednesday, the 1st inst.

WILLIAM MORRISON, Esq., in the chair.

The minutes of the preceding meeting and adjournment having been read, the CHAIRMAN called upon Mr. English, as his co-auditor appointed to investigate the accounts, to submit them to the meeting. He felt it right to state, that the accounts had been minutely examined, with the view of submitting to the meeting a clear statement of the present position of the company, and doubted not but that the result of the investigation, and labours on the part of the auditors, would give satisfaction.

Mr. ENGLISH proceeded to read the accounts as made up, observing, that the worthy chairman and himself had devoted some 12 or 14 hours to their examination, and having been assisted in the duties devolving on them by the services of the purser and secretary, both of which gentlemen had readily afforded every assistance in their power. In proceeding to read the balance-sheet, as drawn up, embracing, as he believed, all claims or liabilities of the company, while the assets were comprehended in a comparatively limited space, as well as amount, he should feel it to be his duty to advert to one or two items, *en passant*; and accordingly proceeded to read the accounts as made up, of which the following will be found to be a fair abstract, without entering into the details:

Calls on one share	£4481 1 1	
Sales of ore	1099 10 11	£5491 1 0
Arrears of monthly cost		980 11 9
Due to P. Davey, for advances		263 9 11
" J. Pickering, ditto		100 0 0
" G. W. Snell, Esq., purser		33 5 1
" J. Crofts, Esq., secretary		1 9 8
" W. Weekes (damage to land)		55 0 0
" G. W. Snell, as solicitor, assumed, but not admitted		136 19 6
" Gill and Rundle, assumed, but not admitted in part		805 3 7
" Skinner and Son, assumed, but not admitted		68 10 11
		£7684 7 5
Cost incurred, as per last account	£3566 0 11	
Cost, April to July, inclusive	664 12 11	
London expenses, and sundries	67 0 3	
Arrears of calls	1023 0 0	
Balance at bankers	3 1 1	
Balance	370 19 3	£7684 7 5

It would thus appear that the debts due by the company amount to 2200l., or thereabouts—against which are to be placed arrears of calls due. As it is, however, not contemplated that more than two-fifths, or 400l., will be received, it would leave the balance, or amount due, of 1800l., to which some trifling amounts may be added. It is, however, only right to observe that, in this estimate, certain amounts, which are disputed (say, 200l. to 300l.), are included—and hence such amount should be deducted; thus, making the virtual balance due by the company to amount to (say) 2000l. He deemed it right to direct attention to the monthly cost-sheet for April, amounting to 170l., which it was somewhat curious did not appear to be in the possession of the secretary, or the committee, although the cost-sheet for the subsequent month (May) was submitted—being endorsed as for April month, and as such entered in the ledger. It was somewhat strange, he must admit, that such should have arisen, more especially as the warrant amount—in part payment of which, 200l. had been remitted—included a charge of 106l. for services rendered in the proposed disposal of the mine, which, in the course of the proceedings, was stated to have been effected at the sum of 1200l., although, from mismanagement, in one quarter or other, only 170l. was realised—three-fourths of which amount, or about 140l., being sacrificed for law charges. He considered it right to direct attention to this particular item.—A discussion subsequently ensued, which ended in the expressed readiness of Mr. Snell to receive 52l. 10s., or a moiety in full payment of the demand made, and which was agreed upon.

In the course of the proceedings, Mr. J. WEEKES, as representing the lord or proprietor, stated, that he had a claim for surface damage amounting to 200l., which was not included in the accounts. He wished this to be clearly understood.—In the end, however, it was arranged, on the proposition of Mr. English, that the sum fixed should be 55l., which was carried unanimously—such amount appearing in the accounts—of which we have furnished an abstract.

Mr. PETER DAVEY, in addressing the meeting, wished it to be understood that, although nominated, in his absence, at the meeting held last week, as a member of a committee then appointed to wind-up the affairs of the company, he had declined so to act, feeling that a larger body should be appointed. He expressed his readiness to act as one; but did not think that he should either take upon himself the responsibility, or that it should be imposed on him. If, then, a new committee, with increased numbers, should be proposed, he would have no objection to act as one of the body—at the same time, that he considered the duties of the committee could not be said to emanate until those of the auditors had closed; and he was informed, the accounts were then only made up, if even they were then audited.

An explanation on the part of the CHAIRMAN took place, to the effect, that it had been the object of Mr. English and himself to place the accounts before the adventurers perfectly; and that they had been audited and agreed upon, although a fair copy was, he admitted, only then in course of being drawn up.

Mr. ENGLISH submitted that a new committee should be at once appointed, consisting of the chairman and Messrs. Peter Davey, Pickering, Lee, Weekes, and Crofts, with the view to winding up the affairs of the company, which was in the end resolved upon. Mr. Crofts felt it right to state, that the company being defunct, there was now no longer occasion for his services as secretary; he had up to that period, he believed, performed the duties devolving on him in a manner which had given general satisfaction. He submitted, that the papers and accounts of the company should be placed in a solicitor's hands, and then that he might no longer be responsible, and, indeed, wished to wash his hands of the concern.—A conversation arose, in the course of which Mr. Crofts was reminded that he had heretofore held the responsible and paid office of secretary, and suggesting that it was, at least, in bad taste to retire at the moment of winding up the affairs of the company, more especially as he held more than one-eighth interest in the concern. Mr. Crofts, in the end, assented to the business of the company being continued at the offices; and Mr. GEORGE SNELL, as purser, expressed his readiness to render any assistance in his power, without putting forward any claim for the services so rendered.

It was suggested, that Messrs. Keddell, Baker, and Grant, should be requested to act as solicitors for the committee, in conjunction with Mr. G. W. Snell, in winding up the affairs of the company—resolutions to which effect were carried.

Mr. ENGLISH considered that, unless some stringent measures be adopted for the recovery of the arrears of calls, as also enforcing the payment of such moneys as might be due, certain of the proprietors would be sacrificed by the claims instituted, and which would be, doubtless, enforced by the creditors of the company against certain individuals. He thought, therefore, that it was only due to the body of adventurers at large, that a call of 50s. per share should be made; and, in case of non-payment, that the names of the defaulters should be given over to the creditors of the company.

Mr. P. DAVEY fully assented to the views expressed by the last speaker, but considered that the adventurers generally, if advised of the circumstances in which the company was placed, would at once come forward, and pay their calls. He admitted, that it was the bounden duty of "one and all," but he was not an advocate for coercive measures, as

he believed all were influenced by honourable feeling, and would do their part.—The call having been duly seconded by Mr. JOHN WILKINS, was carried unanimously.

Mr. P. DAVY, in moving the adoption of the accounts, begged to convey a vote of thanks to the auditors, for the services rendered by them, which, being passed, an also a vote of thanks to the chairman, the meeting separated.

WEST WHEAL MARIA MINING COMPANY.

A meeting of adventurers was held at the Bedford Hotel, Tavistock, on Saturday, the 27th Nov.—Present: Messrs. S. Trehaue, J. H. Hitchens, John Bayley, Thomas Davis, and John Browne, Esq., of London. By proxy: Messrs. Abbott and Son, Watson and Cuell, the Hon. W. Booth Grey, Sir H. Parker, Bart., O. H. Smith, Esq., C. Bailey, Esq., John Procter, Esq., J. F. Van Zeller, Esq., James Andrew, Esq., Jos. Procter, Esq., and Messrs. G. W. and F. Harrison.

JOHN BAYLEY, Esq., in the chair.

The circular convening the meeting having been read, and the minutes of the last meeting confirmed, Mr. BAYLEY stated, that an arrangement had been made with Captain J. Richards, for his giving immediate possession of Capel Tor Cottage, his arrears of rent being given up, on his leaving all fixtures, except the kitchen stove.—Mr. BROWNE (of London) made a statement of the views of the London shareholders, that they had paid up their arrears to him, and would provide for setting the mine again to work, if, on inspection, it proved worthy of it; that they would undertake the management of the mine in London, and carry it on with the strictest economy; enforce the payment of calls from such as could pay, and forfeit the shares of those who could not; and discharge the liabilities now pressing on the mine. Upon which he proposed the following resolutions:—

Resolved:—“That the operations of the mine be resumed.”—“That all the existing rules and regulations of the company shall be rescinded, without prejudice to the obligations which such rules and regulations imposed upon the shareholders, and the right of enforcing the same, in respect of all the affairs and transactions of the company, up to this date; and that, in future, the mine be conducted purely on the Cash-book System.”—“That the future management of the mine, and its affairs, be devolved on Messrs. Charles Bailey, John Browne, and J. Y. Watson, subject only to be disturbed by the votes of meetings of shareholders, which shall be convened at such times and places, as the managers, from time to time, appoint, provided a meeting be held, at least, once in every two months.”

CHARLESTOWN UNITED MINES.—At a meeting of adventurers, the accounts were examined and passed; from which it appeared, that the cost for two months was 2164l. 11s. 1d.; dues, 105l. 12s. 5d.; together, 2270l. 3s. 6d.—By tin sold, 1818l. 16s. 7d.—leaving balance against the mine of 451l. 6s. 11d., which, added to deficiency at last account, leaves 1420l. 3s. 1d. against the adventurers. A call of 20s. per share was then made, payable within a fortnight.

GREAT CALLESTOCK MOOR.—A meeting of adventurers was held at the Royal Hotel, Truro, on Tuesday last, when the accounts for August, September, and October were allowed, as follows, and the balance ordered to be divided and collected forthwith:—To balance at last account, 255l. 4s. 6d.; costs and merchants' bills, 885l. 14s. 7d.—1140l. 19s.—By received calls and arrears, 504l.; ores sold (less dues), 288l. 12s. 9d.—787l. 12s. 9d.—leaves balance due pursuer, 558l. 6s. 8d. For the further working of the mine, a call of 12s. 4d. per 251st share has been made, that being the number of shares into which the mine is now divided, in consequence of relinquishments.

TREVELLAK.—At a meeting of adventurers, held at Trevelan account-house, on Tuesday last, the accounts, as follows, for September and October were allowed:—By balance at last account, 484l. 19s. 3d.; ores sold (less dues), 530l. 1s. 1d.—1015l. 0s. 4d.—To costs and merchants' bills, 414l. 4s. 10d.—leaves balance in favour of the adventurers, 600l. 15s. 6d.

TREAVAN.—A meeting of adventurers was held on the mine on Tuesday last, when the following accounts for September and October were submitted and passed, and a dividend of 8s. per share declared:—Balance at end of Aug. 1154l. 8s. 2d.; ores sold (less dues), 3477l. 13s. 1d.; sundries, 217l. 12s. 7d.—4848l. 12s. 10d.—To costs and merchants' bills, 3508l. 19s. 9d.; dividend of 8s. per share, 768l. 42s. 6d.—leaves balance in favour of mine, 572l. 14s. 1d.

WEST WHEAL BARRET.—At a meeting of adventurers, held on Friday, Nov. 26th, the accounts were examined and passed, showing balance due pursuer at last account, 258l. 8s. 3d.; labour cost for July, August, September, and October, 442l. 18s. 10d.; merchants' bills, 297l. 18s. 6d.—together, 999l. 5s. 7d.—By call of 5s. per 128th share, 640l.; leaving balance due pursuer of 859l. 5s. 7d.—The following report was read:—“The engine-shaft is sunk below the 75 fm. level about 9 fms.—the lode is from 3 to 4 ft. wide, with good stones of ore; the lode has changed its inclination from north to south; in the 75 fm. level, west of the engine-shaft, the lode is 15 in. wide, producing some ore, and of a very kindly appearance. The 42 fm. level, driving west on the south lode, is 3 ft. wide, with stones of ore.”

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

BENNY MINE.—The Ford lode holds out good expectations; and I think it would be advisable to go down another 10 fathoms. This district is looking well; a further discovery having been made at Wheal Williams. At West Wheal Maria, expectations are held out, although things are not looking quite so well in that quarter.

CALLINGTON.—In the 70 fm. level they have a course of ore, producing about 4 tons of copper ore per fm., the leader being 18 in. wide, solid ore. In the 25 fm. level they have a good lode, yielding 2 tons of ore to a fathom, of an excellent quality.

CONILAWN.—In the engine-shaft, 15 fms. below the surface, they have intersected a lode about 1 ft. wide, containing silver-lead and iron pyrites—it is not the main lode, but a causer, which was discovered in bringing up the lobby level—the ground is favourable for sinking, and the men getting on well.

KITT HILL.—The tributors are raising some good work, and the men are also busy in putting in stamps, and making new floors, &c. This is a promising set, and I am of opinion, that before long, this mine will be worked with spirit. A meeting of the adventurers will take place on Friday next, the 3d inst.

LAMHEROE MINE.—I am very glad to inform you, that we have taken the K lode, which holds out good promise. We have to contend with an influx of water, which, however, affords every indication of promise as coming from an open lode. I expect you will hear more in the course of a few days—as I have no doubt they will beat the water, and be in a position to drive upon the lode. You will, doubtless, have seen some specimens of the lode, which, although not strongly impregnated with ore, carries with it every thing that can be expected, or wished for, as conducive to the ore being in the immediate neighbourhood—which will, no doubt, be proved in extending on the lode. The lode is 4 to 5 ft. big, with mounds and spangles of copper ore of high produce; and I calculate on very profitable results, in a few fathoms driving.

TAVY CONSOLS.—The leader in the bottom of the shaft on Tuesday was 3½ ft. solid copper, and the remainder good saving work. All the levels are also greatly improved, as stated in the captain's report in your last Journal.

CORNWALL RAILWAY.—To the shareholders: At length a door is open to you; and if you do not take the opportunity to get through it, you are infatuated.—“*Quem Deus vult perdere prius dementat.*” By the Government Bill, your directors cannot proceed without the concurrence of three-fourths of the shareholders. Will you be so mad as to give them your consent? At present, your shares, with a paid-up capital of 7l. 10s. are worth 1s.; while, if dissolved, the company can return 5s. “Think of that, Master Brooke.” Call a meeting forthwith—abandon your contracts, on paying the amount due—dissolve the company, and divide the balance, says—A CORNISH MAN.

ABERDEEN RAILWAY.—This line is now completed. A deputation of the directors went over it a few days ago, and the Government inspector has been requested to fix an early day in the present month for its examination. The Brechin branch is also finished, and has been inspected by the directors.

EDINBURGH AND NORTHERN RAILWAY.—On and after the 22d inst., advantage is to be taken of this line—now opened as far as Lindores—by the Edinburgh Post-office, for the transmission of mails north of the Frith of Forth.

LIMERICK AND WATERFORD RAILWAY.—The first experimental trip on this railway, from the terminus in this city to the town of Tipperary (the line being nearly complete), was made on Wednesday, the 24th November, with great success, the engine having travelled to and from, the distance 40 miles, in the short space of 1 h. 20 m. The rail was perfectly level, and the weight of the train over several bridges on the line fully tested their strength and durability.—*Limerick Chronicle.*

LONDON AND NORTH WESTERN RAILWAY.—In order still further to improve the character of their express trains, the London and North Western Company have, on the opening throughout of the Trent Valley Railway, commenced running an entire set of new carriages. These new carriages are on six wheels, are larger than any previously on the line, and are fitted up in the most comfortable, and even luxurious, manner.—*Railway Record.*

According to French, many enthusiasts, who, in the year forty-five, were prepared to throw a viaduct half-way across the world, are now scarcely able to construct a bridge to carry them safely over their last week's washing bill.

NEW PATENTS.

W. Belts, and G. W. Jacob, Wharf-road, City-road, for improvements in the manufacture of capsules, and in the application of designs to certain descriptions of surfaces.

W. Eaton, Camberwell, engineer, for improvements in machinery for twisting cotton, or other fibrous substances.

G. Mosack, Wellington-St., Strand, D.L. for improvements in clocks and time-keepers.

F. W. Newberry, Leicester, paper-maker, for improvements in machinery for the manufacture of looped fabrics.

T. Chandler, Stockton, Wills, for improvements in machinery for supplying liquid manure.—*Mechanics Magazine.*

SWANSEA DOCK COMPANY.—EXTRAORDINARY

GENERAL MEETING.—An extraordinary general meeting of shareholders of this company was held at the company's office, Quay Parade, and thence (for convenience) adjourned to the Town-hall, Swansea, on Thursday, the 2d of December, 1847, at two o'clock in the afternoon.

Present: Capt. EVAN MORGAN, R.A., the chairman of the company, in the chair.

Messrs. L. W. Dillwyn, H. Hussey Vivian, Thomas Walters, John Dillwyn Llewellyn, Geo. Byng Morris, Wm. Walters, V. Clifton, Thomas Williams, O. G. Williams, John Richardson, Charles Hutchinson, Jno. Williams, C. O.; Jno. Jenkins, M.A.; M. J. Michael, John C. Richardson, Philip Rogers, Jan.; John Oakshot; John Coates, H. T. Arnold, B. H. Hennessy, Lewis Thomas, Lind Thomas, George Row, J. M. Elbery, Lewis Roberts, Robert Eaton, Major Phillips, L. L. Dillwyn, C. E. Jones, Dr. Howell, J. R. Tripp, W. M. Maxwell, Dr. Williams, John Jones, James Walters, John Jenkins, Rich. Richards, Jan.; Wm. Morgan, David Jones, J. D. Rees, H. W. Jones, W. K. Eaton, W. H. Francis, Thomas Phillips, Isaac Jacob, John Wm. Leach, Charles Haines, John Trev. Jenkin, and George Grant Francis.

The Chairman having taken his seat, the secretary stated, that he had received proxies for shareholders then present, from Rev. Thomas Morris, Dover; Sir John Pile, Bart., London; Geo. Nicholls, Esq., London; Albert Jenkin, Esq., London; Thomas Atwood, Esq., Swansea; James Richardson, Esq., London; William Edmond, Esq., Swansea; Mr. F. B. Sanguinetti, London.

The Secretary having laid the sealed register of the company on the table, was requested to read the advertisement convening this meeting, which was accordingly read.

Lieut.-Colonel Cameron stated, that he attended the meeting, without prejudice to his rights, as chairman, director, or shareholder, and protested against its legality.—Mr. N. P. Cameron made a similar protest, and reserved to himself the rights as director and shareholder. The Chairman having opened the business of the meeting, and the two notices, or advertisements, signed “Edward M. Elderton,” dated the 9th of November last, and inserted in the *Cambrian* newspaper of the 12th of November last, and in the *Swansea and Glamorgan Herald*, of the 10th of November last; and the several matters and things therein mentioned, referred to, or contained, having been read and considered, and the directors and officers of this company having afforded full and satisfactory explanation and information on all points.

It was moved by Mr. H. Hussey Vivian, seconded by Dr. Howell, and resolved:—“That this meeting is unanimously and decidedly of opinion, that the proceedings of the Swansea directors have been uniformly legal, straightforward, and honourable, and that they are fully entitled to, and are hereby offered, the entire support and confidence of the shareholders now present; and this meeting hereby confirms and adopts all such proceedings accordingly.”

It was moved by Mr. J. Rolley Tripp, seconded by Mr. Charles T. Wilson, and unanimously resolved:—“That the consideration of the bye-laws be postponed to an adjourned meeting, to be held on the 23d inst., and that, in the meantime, copies of the bye-laws be circulated amongst the shareholders.”

It was moved by Mr. John Jenkins, M.A., seconded by Mr. J. Rolley Tripp, and unanimously resolved:—“That, in the opinion of this meeting, it is expedient that a committee of shareholders should be appointed to take into immediate consideration the differences which have arisen between the directors and a portion of the London shareholders, and to adopt such steps as may appear advisable for the purpose of settling the matter, and to ascertain whether any amicable adjustment of those differences can be effected, with a due regard to the general interests of the company; and that Messrs. H. H. Vivian, J. Richardson, J. W. Leach, H. K. Eaton, Major Phillips, and J. R. Tripp, be accordingly appointed a committee for the above purposes, and be requested to report in writing to the shareholders, at the adjourned meeting, to be held on the 23d day of December last.”

It was moved by Mr. J. Rolley Tripp, seconded by Mr. O. G. Williams, and unanimously resolved:—“That it is the opinion of this meeting, that the affairs of the company are in a satisfactory condition, and that the Board of Directors meeting at Swansea, and that an exclusively London Board would be highly objectionable.”

It was moved by Mr. L. L. Dillwyn, seconded by Mr. Geo. B. Morris, and unanimously resolved:—“That this meeting at its rising, do adjourn to Thursday, the 23d day of December instant, at the same hour and place.”

(Signed) EVAN MORGAN, Chairman.

The chairman having left the chair, it was moved by Mr. Phillips, seconded by Mr. H. H. Vivian, and unanimously resolved:—“That the best thanks of this meeting be presented to the chairman, for his able conduct in the chair.” (Signed) GEORGE GRANT FRANCIS, Sec.

GREAT WHEAL MARTHA AND ITS DISTRICT.

We have received a very lengthy epistle from Capt. J. Spargo, in reply to a communication from “Geological,” on the subject of Great Wheal Martha, and the late mode of working. So much correspondence has, however, lately taken place on this particular mine—a continuation of which it is impossible can be interesting to the generality of our readers—that Capt. Spargo must excuse us giving his communication anything like entire; while we will endeavour to make his general opinions known to our readers. He first—to show that his previous letter was not uncalled for—quotes a letter he received from a shareholder, requesting his opinion of the mine; and then, after much writing, irrelevant to the matter, proceeds to say, that it was 12 years since he first worked in the mine—took particular notice of the lode after it had left its gossan, and, from the indications, and a comparison with other mines, he could not see the least chance of expecting any profits from Great Wheal Martha at shallow levels; and that it was evident the agents were not guided by practical knowledge, when they were induced to make such unwarrantable experiments, in the hope of arriving at successful results. He states, that the strata, in the western part of the mine, is chiefly of a white clay-slate, and more so, as it approaches the lode. The lode is a hard, black capel, varying in size from 1 ft. to 10 ft., underlaying 3 ft. in a fathom. Between the two lodes, in the 40 fm. level, north of the south lode, there is a clay-slate, which is not congenial for copper; and the strata to the north of the north-lode, for upwards of half a mile, is a dark blue clay-slate, more congenial for lead than copper. He says that, instead of the western mine being 90 fms. deep, it is only 60 fms., as the lode underlays 3 ft. in a fathom; but that he always believed, that 80 fms. in the eastern shaft, was the depth at which they would get into another strata, and he still remained of the same opinion. He next takes a comparative view of the various mines in the district, which is traversed by numerous elvan courses, lodes, cross-courses, and floodings, in cross veins, composed of clay. He then proceeds as follows:—“In the great United Mines, commonly called ‘Ale and Cakes,’ there is an elvan course passing to the north of the lodes, which sends its shoots through the clay-slate, more or less. Again, in the Gwennap Consols, commonly called ‘Wheal Virgin,’ there is an elvan course just in the central part of the mine; and in Wheal Fortune we see an elvan course passing through the strata; but it forms a different angle from many I have seen in that neighbourhood; and the clay-slate, in the shallow levels, is rather of a dark hue; but at the depth of 70 fms. it becomes rather lighter, and I think, if I mistake not, about that depth they cut into a good course of ore. In Wheal Damsel, there is an elvan course passing at a small distance south of the mine, and in many other mines, could mention similar large cross-courses, the former to the attention of ‘Geological,’ to the Holbeck Mine in the district, this mine was knocked twice, with a loss of capital. Although just like many of those in the western district, that made rich branches of copper at a very shallow depth, yet there was not then to be seen the least vein of elvan (or hornblende) to cross the lode—consequently, there have been many shallow levels driven in search of copper, but to no profit to the former adventurers. In the year 1834, the mine was taken up by some of the present proprietors, and in the year 1843 they had made a profit of 20,000l.; but those rich deposits of copper were found between an elvan deposit and a large cross-course, the former to the attention of ‘Geological,’ to the Holbeck Mine in the district, this mine was knocked twice, with a loss of capital. 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LONDON, DECEMBER 2, 1847.

a Discount 2½ per cent. b Net cash. c Discount 2½ per cent. d Ditto
e In kegs 2 and 4-inch. f Discount 3 per cent. g Ditto 2½ per cent. h Net cash
in bond. i Discount 3 per cent. k Ditto 2½ per cent. l Net cash
m Discount 1½ per cent. n Discount 1½ per cent. o For home use it is 32½ per ton.

[FROM OUR CORRESPONDENTS.]

THE IRON TRADE.

PRICES OF MINING SHARES.

Silver bars to Rotterdam	30,000 ounces.
Silver coin to Belgium	4,000 "

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending Nov. 27,

COMMERCIAL ELECTRIC TELEGRAPH.—The only really COMMERCIAL TELEGRAPH is that which may be used for ALL PURPOSES, without restriction—upon which terms Messrs. BRETT & LITTLE are prepared to GRANT LICENSES for their ELECTRO-TELEGRAPHIC CONVERTER.

For tickets to inspect, apply to BRETT & LITTLE, Farnival's Inn, London.

Sampled Nov. 17, and Sold at Andrus's Hotel, Redbank, Dec. 2, 1847.

TOTAL PRODUCE.									
North Pool	768	3623	4	0	Cowdour	244	1033	19	6
East Wh. Crofty	673	3637	8	0	South Wh. Bassot	200	1179	3	0
Dundane					East Pool	130	519	3	0
Longclose					Lanivet Consols.	48	397	6	0
Wh. Seton	539	3086	17	0	Wh. Friderose	56	80	6	0
Wh. Friderose	539	317	16	6	Wh. Friderose	41	317	16	6
Cambarne Veau	438	1881	5	0	East Seton	23	106	19	0
Dolcoath	283	1319	7	0	West Bassot	20	94	0	0
Fowey Consols	260	1446	12	6	Tretol	12	12	18	0
South Wh. Francis	246	1863	4	6	Wh. Union	10	72	10	0

	Tons.	Amount.
Mines Royal	168	2684 11 6
English Copper Company	552	3094 0 0
Viridan and Sons	1016½	4838 10 6
Freeman and Co.	372½	2239 9 6
P. Grenfell and Sons	640	2322 16 0
Crown Copper Company	522	196 17 6
Sims, Williams, and Co.	568	3694 18 6
Williams, Foster, and Co.	1010½	3812 8 6

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Par-
cels.—Carn Brea Mines 903—Par Consols 324—Wheal Prosper 222—United Hills 170—
Wheal Treynayne 147—Wheal Buckettes 126—Wheal Agar 64—Wheal Agar 60—Wheal
Rodney 56—North Wheal Bassett 53—Great Work 46—Wellington Mines 30—Bastian's
Ore 30—Trenow Consols 18—Hanson Mines 9.—Total, 2357 tons.

NO SALE on Thursday week. Dec. 16.

Sample d Nov. 10, and Sold at Swansea, Dec. 2, 1847

TOTAL PRODUCE.						
Cebre	552	£0 46 2	4 6	Parings	48	£773 16 0
Cuba	377	4 16 13	6	Chill	81	2751 9 0
Kapanda	302	5 8 5	3 0	Parings	44	727 2 0
Berhaven	214	14 8 5	0	Gloster Slag	17	174 19 0
Barra Barra	110	16 7 1	0 0	Kanmantoo	11	156 15 0

Mines	Tons	Amount
English Copper Company	117	\$237 16 0
Freeman and Co.	110	779 0 0
P. Grenfell and Sons	244	3675 0 0
Stans, Williams, and Co.	223	3700 4 6
Vivian and Sons	490	6686 17 0
Williams, Foster, and Co.	585	5931 18 6

Mines.	Tons.	Price per ton.	Purchasers.
Charlestown	18	£43 7 6 ..	Daubaz; Calenick; Williams.
ditto	21	44 0 0 ..	Williams and Co.
ditto	18	32 8 0 ..	ditto

EXPORTS OF METALS TO ALL INDIA FROM LONDON AND LIVERPOOL,
FOR THE FIRST ELEVEN MONTHS OF 1846 AND 1847.

<i>Meals.</i>	1847.	1846.	<i>In. in 1847. Dec. in 1847</i>
Spelter	2694	4566	— 1023
Copper	3064	3274	— 236
Iron, British	10353	7715	2640 —
Do, foreign	764 8	3318	— 3440
Tin-plates	7147	6778	— 369
Lead	576	576	— 281
Steel	342	753	— 281
Quicksilver	36	755	— 786

NOTICES TO CORRESPONDENTS.

It will at all times be much trouble, and frequently considerable delay, if communications are simply directed—
To the Editor,
Mining Journal Office,
36, FLEET STREET, LONDON.

Also, to avoid trouble, Post-Office Orders should always be made payable to WILLIAM SALMON MARSHALL, as acting for the proprietors.

AIR GAUGE.—A Correspondent is desirous of being favoured with a rough sketch of an air gauge, for ascertaining the speed of air in an air passage.

WATER-PRESSURE ENGINE.—A Subscriber is desirous of being informed where can be seen at work the water-pressure engine—more commonly known as the "Hungarian Machine," it being, in fact, a steam-engine worked by water, instead of steam.

SIMPSON'S SUBMERGED PATENT.—In reply to "An Ironmaster," who has read various articles, but cannot discover one treating on the real merits of the invention, or descriptive of the point where the superiority exists: we can only refer him to another article in this Journal, which, however, is still far from being very clearly descriptive. We should think the patentee will lay such a statement before the public, as would give the information our correspondent requires.

"T. B."—NORTHERN COAL MINING COMPANY.—We understand two meetings of this company have been held lately—one at Norwich, on the 22d of October, and the other on the 19th Nov.—the object being to raise £10,000; with what success we are ignorant, as we have no means of ascertaining the proceedings of the company—neither directors or shareholders wishing publicity given thereto: when they do become so far enlightened, as to desire the aid our columns can render, they will find a space for their reports.

ADCOCK'S SPRAY PUMP.—The communications of Mr. Henry Williams (Pontypool), and "Henda" (London), shall be inserted in our next Journal. We receive so many letters on this subject, as to render it altogether impossible to comply with the request of the writers by giving them insertion; indeed, we think, after the two referred to are published, the discussion had better close—with the exception, perhaps, of the concluding explanations of Mr. Adcock.

MINING IN CARDIGANSHIRE.—The communication of Capt. M. Francis, on the Cwmystwith Mines, shall appear in our next.

A Constant Reader (Blackburn).—We do not understand the question, or should be happy to give the required information.

The **MINING JOURNAL** is published at about Eleven o'clock on Saturday morning, at the office, 36, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, DECEMBER 4, 1847.

There has been no material change in the commercial state of affairs, since our last publication. We are bound to consider ourselves still standing on that intermediate, neutral ground which separates suffering from enjoyment, and distress from a prosperous state of circumstances. The Parliamentary discussions of the week have thrown considerable light on some of the causes of the general embarrassment, out of which we have been now some time emerging. The draining out of the kingdom of thirty millions, to pay the foreign corn-grower, and of thirty millions more, from its ordinary channels, in obedience to railway calls, is such an exhaustion of the floating capital—which is the animating principle of all commerce—as no living nation but this could have stood up against. In addition to this there arose, in the months of September and October, a panic-fear that our accumulated wealth was insufficient to meet our accumulated wants; and capitalists, as a body, stood cautiously aloof, in apprehension of that very storm which their own conduct was, at that moment, accelerating. The result is known to the whole world; for the pealing of the tempest was heard from continent to continent, and flung back its echoes from shore to shore. It may be confidently affirmed, that there was nothing to justify these fears. The double expenditure we were incurring would have sharply tested our resources; but it would not have shaken, very deeply, our commercial stability, if confidence had been but moderately maintained; and, as it was, a waving of the Government hand was sufficient to re-assure the wavering, and to embolden the timid. On the whole, it is a great lesson for the future Government of our commerce, as a great system, and for our commercial men in their separate relations. It will be seen, that public securities are still improving, and going up; and though the motion is somewhat heavy, it is steady, and sustained. We fear that no remarkable improvement is likely to take place sooner than Jan. next, as there is a very general tendency to lessen outstanding liabilities, when the universal pay-day is so near at hand. We are happy to find, notwithstanding, that large foreign orders have recently been received for our manufactured produce; and that there is a probability that a very fair winter trade will be done in that direction. The general activity of the iron districts is, we believe, somewhat impaired, in consequence of the suspension of some of the railway contracts. The business done in mining shares during the week has not particularly varied from the week preceding. In this branch of our domestic industry we wait the fuller extrication of trade and commerce from its difficulties, and the coming on of that enlarged spirit of enterprise and adventure which is likely to dawn upon us with the dawn of the new-born year.

The importance of employing well-finished and properly-tested machinery, as well as the most careful, efficient, and trustworthy persons to superintend it, in all situations where large bodies of persons are congregated, was never more painfully exemplified than in the late unfortunate boiler explosion on board the *Cricket*. We have on so many occasions noticed the subject, that it would be but superfluous to allude to it at any length on the present occasion; but we particularly call the attention of our readers to a letter in another column, to **LORD CHIEF JUSTICE DENMAN**, from the pen of an engineer who has had long experience in the management of steam-boat machinery, and who appears to be well acquainted with every peculiarity of the engines of these boats, and of the circumstances connected with the unfortunate occurrence. There certainly does appear to have been sad neglect on the part of some of the parties engaged to defend **HEASEMAN**, in not calling all the witnesses in his favour, whose names were entered on the counsel's brief. Had Mr. **BAKER** been called, he was prepared with evidence which must at once have convinced the jury that **HEASEMAN**, at least, was anything but ignorant of the business he had undertaken; and that, while thoroughly acquainted with the nature of his duties, he had not neglected them. As it was, we could observe nothing in the evidence to justify the jury in the verdict they delivered reflecting on the character of an honest man, and subjecting him to the treatment of a felon. Mr. **BAKER**'s letter, which we publish with pleasure, is thoroughly explanatory, and, we trust, will place **HEASEMAN** in a proper light before the public.

We have great pleasure in congratulating Mr. **JOSHUA RICHARDSON**, of Neath, on his reception of the **Telford** silver medal, and the council's premium of books, from the Society of Civil Engineers, for his paper on the "Ventilation of Mines;" and we may congratulate, in a larger sense, perhaps, the thousands of labouring men in the great coal-fields of England and Wales, on the suggestion of means, competent in the judgment of this distinguished society, whose name we have quoted, to add to the safety, and to increase the wholesomeness, of that deep and heavy atmosphere in which they are called together to pass so great a portion of their existence—an existence which, we trust, will be rendered the more healthy and the more secure by an attention to the suggestions contained in this valuable prize paper. Its contents were inserted in a Number of this Journal of 27th March last, and to its publication there, in *extenso*, we must refer our mining readers. We may be permitted to express a hope, that the general body of coalmasters will promptly and voluntarily adopt a measure for the purification of their mines, by which human life is likely to be largely economised, and the personal and domestic comfort of the miners much increased. We have, as we think, had occasion to deplore the torpor and insensibility of the masters, as to the comfort and improvement of their labouring dependents. We entertain an expectation that a better

feeling has supervened; and that, though it is not possible to make gentlemen humane and sensitive by Act of Parliament, a better view of their duties and their interests will inspire greater consideration for the comfort of those thronging thousands, whose case Providence has so fully placed in their hands.

In our columns of the 6th Nov., and again in those of the 20th, we called attention to a movement now in progress in the mining districts of the midland counties of England, to raise a subscription for the erection of a monument to the memory of Sir **HUMPHREY DAVY**. In our first remarks on this interesting subject, we stated that the idea had emanated from Mr. **J. GARRA**, owner of the Titford Bridge Colliery, Oldbury—we have received a communication from Mr. **GARRA**, stating that he is not the owner of the colliery, but clerk, and that "he had never heard such a proposal named by any other human being." We can only say that the idea, with the steps he has taken to carry it out, do him great credit—the more so, as filling the humble situation which he informs us he does. It is not now a question whether the Davy lamp has been abused, or been made available to the worst purposes of cupidity by the coal owners at the expense of the lives and limbs of their workmen, and the reduction to ruin of their wives and families. It was an invention involving the deepest scientific research, persevered in with the most disinterested anxiety, for the amelioration of the dangers attending the working miner, and which, had it been employed as its author intended, and not left to the recklessness of the miners themselves, for whose benefit it was intended, it would have proved a guardian angel, instead of what it has too often proved "an *ignis fatuus* to lure to destruction." Independent of the invention of the safety lamp, the claims of this truly great man on society, to perpetuate his memory, are so great, that we sincerely trust such a fund will be shortly obtained, as will enable a monument to be raised, which, while it will not only assist history in carrying his name down to posterity, as one of the greatest benefactors of the human race, will reflect credit and honour upon the parties concerned in its erection.

The Government Bill, for the "better prevention of crime in Ireland," is now before the public. As we anticipated would likely be the case, it is in fact a "Coercion" Bill. It is not, indeed, so stringent as that of Sir **R. PEEL**'s, in 1846; but its principles are so identical, that Lord **JOHN RUSSELL** was taunted for its similarity, while the right hon. baronet himself found it necessary to urge the House to support the present measure, as the best preparation they could yield the late Administration. We firmly believe that Lord **JOHN RUSSELL** considers this but an experiment—but a stepping-stone to a more stringent Act; although he will not commit himself so glaringly at once, as by adopting the precise principle and the same measure, to his opposition to which he owes his accession to power. Sir **GEORGE GREY** hinted as much on Monday evening; for he informed the House even then, before he had finished his introductory speech, that the Government would not hesitate to ask Parliament for additional powers, should it find they were necessary for the proper suppression of crime. It is evident, therefore, that the **RUSSELL** Government itself has great doubts as to the efficacy of its own bill.

The conduct of Sir **R. PEEL**, on Monday evening, cannot be too highly praised, for the magnanimity with which he gave his own support to the measure, and called upon others, who might be inclined to oppose it, to do the same. The chief feature of the bill now proposed is its foundation on the discretion and responsibility of the **LORD-LIEUTENANT**, and consequently its partial nature, and its not being applicable to all Ireland, but only to such parts as its enforcement might be thought necessary by him. By the first clause, it is proposed that the **LORD-LIEUTENANT** should have power to proclaim, "subject to the provisions of this Act," any county, city, or town, barony, half barony, or lesser district. The second clause provides that copies of the proclamation should be posted generally throughout the district named in the proclamation. It is then proposed, that the **LORD-LIEUTENANT** should have power to increase the constabulary force to any extent he thinks necessary in the proclaimed district, that increase being limited to the amount of the reserved force placed at his disposal. The reserve force is now limited to 400; but it is proposed to empower the **LORD-LIEUTENANT** to increase that number to 600, owing to the frequent demands for aid which are to be expected from the disturbed districts. The whole expense of that force is to be paid, not out of the Consolidated Fund, but by the district in which it is called to serve; and one-half of the sum to be discharged immediately, and the other half postponed to a remote period. There is a provision in the bill to authorise an estimate of the expenses of the force to be made out—that is, on the police being sent into any district, an estimate of their maintenance for three months is to be made out, and means immediately taken to levy the sum requisite, on the same principle as the county cess is levied. Should the police not remain the three months, an arrangement will be made for paying into the county cess the excess that had been charged. It is then provided, that there shall be a general prohibition of all persons to have, or carry within the district specified in the proclamation, elsewhere than in his or her own dwelling-house, any fire-arms. In this clause no discretion is left to the **LORD-LIEUTENANT**; but whenever he thinks the proclamation ought to issue, this clause would apply irrespective of any further act of his Excellency, and it would be no longer lawful for any person to go about carrying arms in the proclaimed district. The exceptions to this law are—"Justices of the peace, persons in her MAJESTY'S naval, military, or coast-guard service, the revenue, police, or constabulary force, special constables, and persons duly licensed to kill game."

The constabulary are also to be authorised to search all persons in the disturbed districts suspected of coming within the provisions of this Act. The next provision empowers the **LORD-LIEUTENANT** to carry the previous one still further, should he, in his discretion, deem it necessary. He is to have the power of issuing a notice to the whole, or a portion, of the proclaimed district, and of calling upon all persons, not enumerated in the exceptions already mentioned, to deliver up their arms, by a day to be named, at the nearest police-station, or some other place within the district to which the notice shall apply; and it is then proposed to enact that all persons, not coming within the exceptional cases, after receiving that notice, knowingly retaining possession of arms, even in their own houses, shall be deemed guilty of a misdemeanour (as also those who infringe the previous provision); and that the **LORD-LIEUTENANT** shall have the power to order a search to be made by the police, in the day-time, and to authorise the seizure of all the arms, in the district included in the notice; and that those arms shall be forfeited to the Crown. It is next provided to empower the **LORD-LIEUTENANT**, in cases where he deems it necessary, to declare that the inhabitants of counties in which threatening notices are sent should be amenable to the provisions of the Whiteboy Acts. But, we think, by far the most important clause of the Bill introduced by the Home Secretary and that which is likely to prove the most effectual in preventing crime, is the last one, which is in substance, that the justices of the peace, and the constabulary, where any murder has been committed, or any attempt made to murder, or where there may be any reasonable ground for believing that any murder has been committed, should be empowered to call upon any person within the ages of 16 and 60, residing or being within the district in which such murder, or attempted murder, may have taken place, to assist in the search for, and in pursuit of, the persons charged with the commission of the murder or attempted murder; and every such person refusing to join in such pursuit, or in doing his utmost to discover and apprehend the offender, or offenders, is to be considered guilty of a misdemeanour, and to be liable, on conviction thereof, to be imprisoned, with or without hard labour, for any term not exceeding two years. This provision will have a more salutary effect in suppressing these horrid outrages on society, which are so frequent in many parts of Ireland, than all the other provisions of the bill. We suggested, last week, that the priests should be made, in some measure, responsible for the discovery or apprehension of the guilty parties; and we are happy to find, that there is likely to be an opportunity of our recommendation being carried into effect. When it is recollected that their influence over the people is so very great, and that their position and functions afford them such undeniable means of gaining peculiar information, they are the first persons that should be resorted to for assistance in finding out the perpetrators of crime. We have stated the leading features of the bill, as laid before the House by Sir **G. GREY**, on Monday evening. We have little doubt, from the division which then took place, that the measure will pass the Commons, with, perhaps, some trifling alterations in committee; but it remains to be proved how the Lords will receive it.

PROGRESS OF THE ATMOSPHERIC RAILWAY SYSTEM.

The disappearance of the entire length of tube, laid down as a full-size working model of Clarke and Varley's elastic system, near the Poplar station of the London and Blackwall Railway, has caused a good deal of misconception in the minds of that portion of the public who have paid attention to the principles of atmospheric traction on railways—satisfaction to those who have constantly supported the locomotive, and decried the atmospheric system as impracticable; and regret to those who have ever been convinced that the latter, when carried out with well-constructed mechanism, is the only means of escape from the enormous expenses, and the imminent danger, of the present general system, and, in fact, which are inherent in it. We are happy, however, to inform our readers, that the tubes were taken up not from any mistrust, or fear of the capability of the system, but from a determination, on the part of the proprietors and patentees, regardless of expense, to render the tube as perfect as possible, and to develop the full capabilities of the system. Our readers will recollect that, on the 21st August last, we gave a full description, with diagrams, of a new corrugated copper tube, which Messrs. Clarke and Varley had introduced, and which was found perfectly successful—allowing for any degree of expansion and contraction, and superseding the employment of every description of leather, gutta serena, or other perishable or objectionable substance. The tubes are now again related with these metallic joints; and we were present during some interesting experiments, to ascertain the extent of leakage to which the tube (374 ft. long and 15 in. diameter) might be subject. The results were most completely satisfactory, but as several engineers entered minutely into detail, and as Mr. Gray is preparing a report on the subject, we shall defer any remarks of our own, hoping to give that gentleman's report entire in our next.

CUNNINGHAM AND CARTER'S PNEUMATIC RAILWAY.—This novel principle, which we fully described in the *Mining Journal* of Sept. 18th last, appears to be losing none of that interest which was excited in the scientific world on the first exhibition of the model. It is still numerously attended; and the machinery certainly appears to work better than ever. The principles of the original patent are, of course, not in the slightest degree altered; but the attention of the patentees is continually on the alert for any little improvements in detail which may simplify and economise the arrangements. Of the numerous plans for atmospheric railways which have been brought before the public within the last two or three years—many of them of the most laughable and ridiculous character—we may consider those two systems, with that now being carried out on the South Devon Railway, all that is left to stand the test of fair actual working trial. We have before observed that, although the atmospheric principle received a most severe blow, on the breaking up of the London and Croydon line, it was only "scotched, not killed;" and we are glad to perceive that there is an evident reaction in its favour. Many engineers, who have generally expressed themselves as hostile, or at least indifferent, to the system, are beginning to consider whether the time has not nearly arrived when a proper trial should be made, with a plan more certain and less expensive than that on the South Devon—and thus a system be adopted, whereby the locomotive-engine, with its dangers and ruinous expenditure, be dispensed with. We trust the ensuing spring will not pass without a persevering movement being made; and, if only partial success attends a first trial of either of these systems, it will be highly satisfactory, and lead to greater results.

SOUTH DEVON LINE.—It is indeed, as we have from the commencement observed, as regards this system, "a question of valve." Already has "Jack Frost" begun to play his tricks with the valve *valve*, and has given an early promise that he will have some fun with it during the ensuing winter. According to all the accounts that we have received, the trains had run with considerable regularity up to last week; and all connected with the line considered that everything seemed to indicate that all difficulty had been surmounted, and that the question had resolved itself into one of economy. It appears that nothing could be more pleasant than the easy way in which the trains pass the ugly curves at Powderham, without the risk of a locomotive shooting off the line at that place. Alas! for human calculations of felicity, the first frosty night the scaling substance was frozen to such a rigid state, that, on the first morning train arriving at Countess Weir, the valve was found to be unsealed, a vacuum could not be obtained, and the anxious and unfortunate passengers were detained full an hour. This is really a serious affair. After enormous expenditure, and the most sanguine hopes of success, almost the first day of winter retards the regularity of the trains; and, if such be the case, what must be expected through the ensuing three or four months in such an exposed and inclement situation? It is really painful to see the persevering exertions of scientific men applied to measures so woefully unsuccessful, as has been the case with this unfortunate longitudinal valve.

RAILWAY CALLS.

The following is a summary of the total amount of calls made by the several railway companies during each month of the present year. It shows the amount called up for English lines distinct from those for foreign lines; and, having been compiled with care, may, we think, be depended on:—

1847.	British.	Foreign.	Total.
Calls payable in January	£2,487,968	£1,692,000	£4,179,968
" February	1,454,881	80,000	1,534,881
" March	3,053,697	309,800	3,363,497
" April	4,313,439	40,000	4,353,439
" May	2,395,244	316,000	2,711,244
" June	2,484,756	1,350,000	3,834,756
" July	2,394,545	1,032,000	3,426,545
" August	2,227,839	62,000	2,289,839
" September	2,328,874	800,000	3,128,874
" October	3,365,451	92,360	3,457,811
" November	1,896,218	145,500	2,041,718
" December	2,106,702	Nil.	2,106,702
Total for the year	£25,541,921	£4,490,660	£29,992,581

REDUCTION OF COPPER ORES BY ELECTRICITY.—A commission having been appointed by the French Government, to investigate the process of Messrs. Rivot and Phillips, for smelting by electricity, they have presented their report, which we shall be able to give in a future Number. In the mean time, we are enabled to lay before our readers some of the results of the experiments, as described by themselves. Having come to the conclusion, that no good results can be obtained from employing galvanic action, even in connection with iron, to obtain either copper, or lead, from the sulphurets, they proceed to state, that they were speedily convinced that, of the three agents employed in the crucible, for the reduction of the oxide of copper—the plumbago, the iron, and the electric current—the first two, and especially the iron, were alone sufficient; and numerous experiments have since proved that, by the action of iron alone, a silicate of copper, containing other bases—such as soda, lime, and oxide of iron—gives up, in the course of one hour, the whole of its copper, in a state of complete purity. In the crucible were placed two, or more, bars of iron, dipping down to the bottom, and kept at the upper part by a bed of luting; the material employed was sulphuret of copper, roasted, or a mixture of oxide of iron, oxide of copper, and sand, adding, as a reducing medium, soda, or even sometimes chalk. In using soda, the reduction of the oxide of copper was effected in a very short time; in about a quarter of an hour's melting, the copper obtained was chemically pure. With chalk, the complete reduction of the metal required an hour's fusion. The copper produced always contained much iron, when the bars dipped to the bottom of the crucible; and, on the contrary, was always very pure, when the bars were even but a little distance above the bottom of the crucible. The time necessary for the complete reduction of the oxide was also, more or less, short, in proportion to the size of the bars of iron employed. The general result has proved, that the action of iron bars, on a melted metallic silicate, containing 2 or 3 per cent. of copper, is powerful and rapid, and that three hours are sufficient to reduce the quantity of copper in the slag 0.004 or 0.006 per cent., and to obtain the copper free from iron.

A NEW LIGHT.—Mr. **Isaiah Bagges**, whose inventions we have often noticed, has just obtained a patent for a new apparatus for burning the vapour of naphtha, spirits of wine, or other suitable liquid. It consists of an upright cylindrical vessel, or lamp, in the interior of which is a small tube, or pipe, reaching to nearly the top of the vessel, and projecting from it at about one-third downwards—a quantity of naphtha, or other spirit, is placed in a suitable receiver at a proper height to keep up the necessary pressure. A peculiar apparatus is employed for first lighting the vapour, after which the flame is regulated by a rack and pinion, and the evolution of the vapour is kept up by the heat imparted to the vessel by the flame.

PROGRESS OF FRENCH MINING INDUSTRY.

(FROM OUR PARIS CORRESPONDENT.)

There is some talk of an important project being on foot, for the formation of an extensive port at Dieppe, with such a depth of water as will admit good sized vessels at any time, without reference to the tide. English capitalists are, it is said, prepared to embark in the scheme, which its consequences expect will turn out to be very profitable. It appears that, if the port should be formed, it would be possible to bring English coal to that part of France for about 17s. a ton—at least, such is the calculation which is made. In this case, English coal could be delivered in Paris for less than it costs in London. I need not dwell on the importance of such a fact, for your readers will see at once that it would lead to an immense importation. It is, indeed, I understand, chiefly on the importation of coal that the speculators in the port count for a profitable investment for their capital.

Coal is getting more and more into favour with the French every day. A few years ago, you could scarcely meet with a single coal fire in any house in Paris—now, coal fires are no novelty. And yet the only coal which the Parisians are able to procure is both dear in price, and detestable in quality. If English coal could be brought here for a reasonable figure, I am confident that, before long, it would be generally used. But why say, "if it can be brought?" when it is perfectly clear that, with the Boulogne Railway, it can be made to reach us at no very heavy outlay.

Tearfully call the particular attention of such of your numerous readers, as are interested in the coal trade, to this most important subject. A new era is now opened to them. They have the opportunity of obtaining, if not the monopoly, at least the greater part of this immense market of France. I say the "greater part" advisedly, although I know that at present the imports of coal from Belgium are larger than those from England. But let our coal become cheaper than it is, and it will be universally preferred to that of Belgium. As I have stated in previous letters, English coal finds its way to 38 departments; whilst that of Belgium goes only into 26. It even goes, in no inconsiderable quantities, to the department du Nord, which is close to Belgium, and which receives just one-half of all the coal imported into France from that country. This, then, is beating Belgium on its own peculiar ground. But what principally satisfies me that our coalowners could outstrip the Belgians is, first, the fact that, within the last seven years, the importations from England have increased in a greater proportion than those from Belgium, notwithstanding the check sustained from the increased duty which was placed on the export of coal from England in 1842, and continued till 1845; and next the fact of the astonishing increase which has taken place in the imports from England, and which is progressing every year; the quantity of coal imported, which was only 37,530 tons in 1832, having risen to 304,684 tons in 1838, and 565,749 tons in 1845.

That the French themselves calculate that the opening of railways to the coast nearest England will greatly facilitate the introduction of English coal, is clear from the fact that the *Journal des Chemins de Fer et des Mines*, which is the only journal in France which specially occupies itself with mining matters, has taken alarm at what the *Mining Journal* has already said on this subject. After making an extract from one of my letters, your contemporary exhorts the French coalowners to make most active exertions to prevent the English and the Belgians from obtaining exclusive possession of the important *débouché* which Paris affords. It, however, admits that this is a somewhat difficult matter, now that the Boulogne and the Northern Railways are opened. In fact, there is scarcely a possibility of it; for none of their French pits, with the exception of those of Valenciennes, have railway communication to the capital; and so far from the coal of that basin having any chance of keeping away the Belgian and English, it is losing ground, even in its own district, since the opening of railways has enabled Belgian coal to be introduced at a moderate rate. In 1838, for example, the department du Nord consumed 6,517,754 metrical quintals of coal from the Valenciennes basin, and only 3,565,858 from Belgium; but, in 1845, it consumed 6,154,464 met. quin. of Belgian coal, and only 5,884,930 of that of Valenciennes.

The usual report of the market of St. Dizier states, that operations had been paralysed, in consequence of better prices being hoped for than could, at that moment, be obtained. The iron *laines* of the Chatillonnais furnaces was, generally speaking, very low, owing to a house at Paris having offered it to the country dealers at 370 fr. the 1000 kilogrammes. The iron of the north was offered at 330 fr. A letter from Lyons, of the 19th, states that the Company of Terre Neuve had just lowered its price 40 fr., which reduced its iron, of the first class, to 300 fr., delivered at Lyons. There was a talk of a further decline of 20 fr., for the end of January.

The Committee for the defence of what is called "National Labour"—by which is meant, the monopoly of the ironmasters and others—has just issued a publication, in which it has the monstrous audacity to assert, that the production of iron is sufficient, not only to supply all wants, but even all the demands that might be made, in the event of railways being constructed with extraordinary activity, and on a much more extensive scale than at present. Yet it admits that prices of iron are on the increase; and it might have remembered that, only a few weeks ago, the Government was compelled to decline contracts for rails for the Chartres Railway, on account of the exorbitant prices demanded. I have not room, to-day, to enter into an examination of the committee's publication; but you may judge that it is sublimely impudent when it asserts, that the production is sufficient for the demand, and yet that prices increase. From the creation of the world to the present time, it has been scarcity which has made things dear, but the French ironmasters *ont changé tout cela*.

I have the pleasure of being able to announce, that the war, which has so long existed, and which, at one time, raged with such terrific violence, between the Great Coal Company of the Loire, and the inhabitants, municipal council, and newspapers, of St. Etienne, is about to be brought to a close. The belligerent parties have very wisely agreed to come to an arrangement. What the precise arrangement will be, has not yet been settled; but it will have the effect of removing all well-grounded causes of complaint from the people of St. Etienne in particular, and of the department of the Loire in general. One of its main features will be, the granting of long periods of credit to all purchasers of coal, not only to those at the head of the large establishments of the districts, but to all who are known to be solvent. The Government, and official personages, have taken an active part in bringing about the arrangement. In my next, I shall be able to enter into details.

A company has just been formed, with a capital of 16,000*l.*, with the right of increasing it to 20,000*l.*, for leasing and working the iron-works of Toza, Fimaleco, and Tenzolasca, in Corsica. The company is also to advance a sum of money, on mortgage, to Kerhoent, Puyaroque, and Company, for carrying on its iron-works. The shares in the new company are of 200*l.*, and the greater part of them has been already subscribed for. Another company has been formed, with a capital of 44,000*l.*, for taking an interest to that amount in the iron-works of Messrs. Kerhoent and Company, which are known as the "Forges et Fonderies d'Arles et de Corse Reunies."

The Minister of Finance has addressed a letter to the shipowners of Havre, Dunkerque, &c., in reply to their demand for the exclusion of English vessels from the conveyance of coal recently contracted for by the Post-office. He states, that he cannot comply with their request, unless the Chamber of Deputies will make a special rate, to cover the extra expense. He might have added, that it would be a violation of the treaty of 1826 with England.

A meeting of the Company of the "Forges de la Bane Indre," is called for the 30th Decr., in this city. These iron-works are under the management of M. Rerail Langlois, whose name is frequently attached to that of the company.

On the 18th of December, the Navy Department will receive contracts for the supply of 20 to 30 tons of sheet-iron; and on the 21st, the War Department will require contracts for the supply of 1800 tons of coal to Algeria.

Mehemet Ali's Minister of Public Works, Kibrom Beg, has arrived in the city, on his way to England, where he goes especially to study the working and management of mines.

The newspapers mention, that Hallette's great engine manufactory, and iron-works, of Arras, have been purchased by some of the creditors for 40,000*l.* I presume this must be in addition to the debts—otherwise, the price is extraordinarily low for such an important establishment.

The production of salt in France this year, added to the stock on board, makes a total of 626,000 tons; the yield of preceding ones was not so great by a good deal. The shipowners engaged in the fishery trade had demanded to be allowed to obtain salt in Portugal, but the Government has

refused the permission, on the ground, that the stock in hand is sufficient to enable their demands to be satisfied at a moderate rate.

Paris, Wednesday.

BELGIUM.—The following items form the budget of the Minister of Public Works for the Department of Mines:—Salaries of officers and travelling expenses, 45,600 fr.; salaries of engineers and foremen, office expenses, &c., 167,200 fr.; examining juries, and travelling expenses of mining pupils, 6000 fr.; subsidies to the *caisses de prévoyance*, and recompenses to persons who distinguish themselves by acts of courage and devotedness, 45,000 fr.; printing, purchases of books, plans, instruments, &c., 9000 fr.; pensions, 75,000 fr.; assistance to *employés*, their widows and families, 5000 fr.; unforeseen expenses, 18,000 fr.—in all, 14,382*l.*

The coalowners of the district of Mons are in a very embarrassed state, owing to the impossibility of obtaining discounts from the failure of the bank. The consequences of these embarrassments are of such extreme gravity, that the Government is deliberating as to whether it shall, or shall not, take measures to afford the coalowners the usual facilities for procuring discount. The matter is a somewhat difficult one to decide—for, if the Government does afford relief to Mons, it cannot well refuse it to other places; and, on the other hand, if it does not, terrible commercial disasters will take place.

On 15th December, the Government will receive contracts for the supply of rails, &c., for the state railways during 1848. In 1846, the Zollverein imported about 83,297 tons of iron.

A number of medals, in gold and silver, have just been distributed, in the name of the King and the Government, to the miners who have distinguished themselves in rendering assistance to their comrades in cases of danger.

The depreciation from use of rails, &c., on the state railways, is estimated at about 44,000*l.* for the ensuing year; and of locomotive carriages at 100,000*l.*—Brussels, Tuesday.

SULPHUR MINES OF AFRICA.

One of our readers having inquired whether the second instalment due from the Turkish Government to the *Compagnie Anglo-Française des Mines de Soufre d'Afrique* had been paid, we requested our "Paris Correspondent" to make inquiry on the subject. Not being able to ascertain the address of the managing directors of the company, our correspondent deemed it right to apply to the Minister of Foreign Affairs; and he has forwarded to us a copy of his letter and of the Minister's reply, of which we publish translations, in the belief that they may be interesting to many of our readers. Our correspondent's letter to the Minister was as follows:—

"MONSIEUR LE MINISTRE.—Some months ago, a notification appeared in the *Mouveau* to the effect, that your Excellency had procured from the Government of Turkey payment of a portion of the sum which that Government owed to the *Compagnie des Mines de Soufre d'Afrique*. I have the honour to pray your Excellency, on behalf of a foreign shareholder, to be kind enough to inform me if the second portion of that sum has been paid?—and, in that case, perhaps your Excellency will condescend to tell me the name and address of the person who has been charged to distribute it to the shareholders."

"I have the honour to be, Monsieur le Ministre, &c."

The reply of the French Minister of Foreign Affairs was as follows:—

"Ministry of Foreign Affairs, Paris, Nov. 27, 1847."

"Sir,—In reply to the desire, expressed in the letter which you wrote me on the 20th of this month, I have the honour to inform you, that the greater part of the funds, forming the indemnity allotted by the Turkish Government to the *Compagnie des Mines de Soufre d'Afrique*, is at present deposited at the *Caisse de Consignations*, which is charged to pay them to the persons interested, after they shall have fulfilled the formalities prescribed by the regulations of the said *Caisse*. The same destination will be given to the balance of this indemnity, as soon as the Consul-General of France at Tripoli shall have forwarded it to my department."

"Accept, Sir, &c." (Signed) GUYOT.

COLD-DRAWN GALVANISED IRON TUBES.—Messrs. Thomas, Stretch, and Co., of Warrington, have patented a new process for forming iron tubes for gas, water, steam, electric wires, bell tubes, &c., and which are applicable to all purposes for which iron tubes can be required. They are extremely light, notwithstanding their great strength—rendering them most important for exportation; and it is evident they may be employed in factories and all public buildings, where tubes are required, without loading the floors, as is the case with heavy cast-iron tubes as now used. They are galvanised inside and out—thus rendering them exceedingly durable; and, if covered with a peculiar kind of mastic, are rendered indestructible, even when placed in the earth. They are thus formed:—A sheet of galvanised sheet-iron, having the edges first turned up into the form of a clasp, is bent circularly to a tube; they are then passed cold-drawn on a mandril through a die-plate, closely uniting the clasped-edges of the metal; and the mandril being withdrawn, the joint of the tube is thoroughly soldered or brazed. Notwithstanding the iron is folded together with great pressure at the clasp, completely compressing it—its strength is by no means weakened; a tube of 1½ in. in interior diameter, and 23 in. in thickness, was proved by an hydraulic press—immediately after soldering, supporting 240 lbs. on the inch with perfect safety, and only opened under a pressure of 330 lbs. A second tube, soldered some days, began to open at 600 lbs. to the inch—and this without fracture or deformity of the iron, but only from the want of the tenacity in the solder. We understand, no tube is sent out without being proved to 300 lbs. per inch; and, for lightness and economy, they certainly appear to be unexceptionable.

IMPROVEMENTS IN IRON BEAMS AND GIRDERS.—Since the fall of the girder-bridge over the Dee, on the Chester and Holyhead Railway, and numerous other similar casualties, during the past year, with the valuable experiments made by Eaton, Hodgkinson, Fairbairn, and other eminent ironmasters, the comparative advantages of cast and wrought-iron, for the purpose of constructing girder-bridges and other structures, requiring solidity and strength, has become a question of the utmost importance. Among the various plans which have lately been before the public, for the better and more secure arrangement of strengthening iron girders, is one for which a patent has been obtained by a Mr. Fielder, whose partners are Messrs. Baker and Son, of Stangate, Lambeth. In this plan, the use of cast-iron alone is avoided, as also of cast-iron strengthened with wrought-iron tension bolts, either screwed, or fitted into dove-tailed sockets, as proposed by Mr. Bramah many years since, and other somewhat similar plans by other engineers since. Mr. Fielder's inventions are two-fold—one being the use of wrought-iron only, secured by having plates, substantially rivetted together, with top and bottom flanges of welded iron, secured by angle iron and coupling plates. This girder has been repeatedly subjected to a proof of 150 tons; and the same results, as to deflection, took place on every occasion with 31 ft. 4 in. between the supports. The tension strength of wrought-iron being 25 to 30 tons to the inch, bearing five-sixths of that weight without loss of elasticity, the patentee proposes to add to the 150 tons one-fifth—and thus, assuming 180 tons as required to break the girder, 90 tons may be considered the fair working weight. This, however, is probably by no means the extent of the power of this girder—the testing powers of the machine used by the patentee would not go beyond 150 tons; but that giving a datum as he thought sufficiently high, he took that as the assumed power, without injury to the metal. Passing over a girder of a somewhat similar construction, but not so economical as the previous one, we come to an experiment on compound girders, formed of wrought and cast-iron together; the first is a case of an old cast-iron one already broken—to the bottom flange of which a piece of wrought-iron, 8 inch by ½ inch, was rivetted; this was now proved to 22½ tons without injury. Another piece, 8 inches by ½ inch was added, when the girder bore a strain of 52½ tons, without loss of elasticity. The next experiment was on a cast-iron girder, which bore 15 tons without injury; with 18½ tons, a permanent set took place of ¼ths of an inch—the total deflection having ¾ths. A wrought-iron bottom flange, 6 inches by ½ inch, was then attached; and this compound girder was then proved to 30 tons with the same deflection as previously took place with 18½ tons; but without injury. The last two girders described were made for the purpose of still further establishing the data contained in the last experiment—one which, according to the *formula*, would possess 31½ tons working power; and the other 29½ tons were loaded respectively to 45 and 40 tons—the deflection in the first case being ¼ths of an inch, and in the latter ½ths of an inch. The patentee considers that the wrought-iron girders have produced the most important results with regard to strength, and are, of course, highly superior in cases where much vibration exists; yet the compound girders, appearing more suitable to general purposes, the patentee confidently expects that they will come into very general use. The pamphlet before us is embellished with large and well-finished descriptive plates; and the facts it contains are well worthy of the attention of the architect and engineer.

Original Correspondent.

MINING IN GREAT ORMESHEAD, LLANDIDNO.

Sir,—I beg to remark on the "Traveller's" letter, in your Journal of the 23d Oct., in which he stated, that "the workings have yielded great quantities of rich copper ores—from moderate calculation, worth from 200,000*l.* to 250,000*l.*—leaving to the adventurers, as may be fairly assumed, a fair profit on the capital invested." The truth is, that no capital was ever invested for working the *Tudno* and *Tynyed*, or old and new mines, in the memory of the present generation. The profits to the leaseholder and lords in—

Tudno Mine, since the year 1837....	£200,000—average, £2000 per annum.
Tynyed Mine, ditto	100,000—average, £2500 per annum.
Tygwyn Mine, ditto 1837....	80,000—after an outlay of £600 only; £4000 per annum for £600.

W. W.

MINING IN CORNWALL.

Sir,—In my last, I mentioned mining on the north champion lode, east from the flat ground between the Mount's Bay and St. Ives; the extent mentioned to Herland Mines is about six miles. I will, therefore, now have a start from this line eastward, on a champion lode, two miles south from the one before described, containing the Wheal Alfred, and other mines. Wheal Fortune is the first to the west; to the east is Wheal Prosper, Trevartin Downs, Kistal, Penberthy, Crofts, Wheal Virgin, Gurlin, and other small mines—east again, to join the Binner Downs and Wheal Treasury mines, mentioned in my last, including Wheal Friendship. This run of mines has been extensively worked, yielding very large returns in all their workings, and considerable profits in former workings; but most of them have declined in depth. Wheal Fortune (the western mine), partly worked in the clay-slate, and partly in the granite, has been the richest, and has been worked to the greatest depth. The principal produce of this lode throughout has been copper; but all the mines, for six miles in length, have yielded a proportion of tin, with small quantities of lead, containing 14 ozs. silver per ton of lead. This run of mines will vary in depth from 100 to 200 fms. There are several cross-courses, and channels of elvans crossing this channel, on, or adjoining, which the richest bunches of ore have been found.

About a mile and a half to the south of the lode before spoken of, is another champion lode, running east from the line, or flat ground, adjoining to, and, in some instances, connected with, it in places, are the several mines of Wheal Darlington—to the west the Marazion Mines, Owen Vean, Halamining, Retallock, Wheal Neptune, Trenow Consols. This line of lodes, running to the east about five miles, runs again into the granite. These mines have been worked from 100 fms. to 150 fms. deep, yielding large returns—most of which, in former workings, have yielded rich and profitable returns. The district herein mentioned is from five to six miles from west to east, and above four miles wide, containing a great many more mines than I have enumerated, and, with very few exceptions, have been profitably worked to the depth of 100 fms.—under this depth, but very little, if any, profitable returns have been made. I mention this, to show how much the mines in the clay-slate assisted in their deposits, in a mineral point of view, by cross-courses, elvans, &c., differ from the great mines—having a still greater variety of cross-courses, elvans, &c., lying on and near to the granite: which mines, in many instances, are profitably worked to 250 fms., and some to a greater depth. The country before alluded to has been a rich and easily worked one, and has a great deal of untried ground, and, I should imagine, many lodes undiscovered, which may pay well by working at moderate depths; but, generally speaking, deep mines in it cannot be looked forward to with a fair chance of remuneration for capital so laid out. So that it will appear, that one district, differing so much from another, makes anything like a general rule difficult to arrive at. Therefore, the first object of the miner in this, or in any other country, should be, to look at its geological features—should this appear favourable, lodes are almost certain to exist in it. This district lies in clay-slate, in a basin of granite, which is out to the surface, east and west; and the richest shallow mines have been found where the clay-slate is thick, and the deepest and most lasting mines where it is thinner. Instances of deep mines, in particular situations, and under peculiar circumstances, may be found, where the clay-slate is the deepest to be imagined; but these are the exceptions, and not the rule.

Dec. 2.

A TRAVELLER.

MINING IN CARDIGANSHIRE.

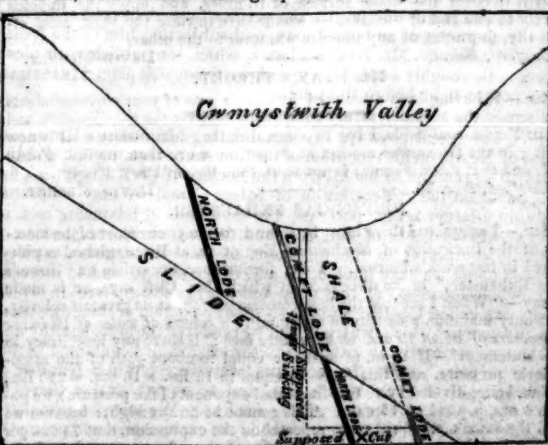
Sir,—I have read, with some care, in your valuable Journal, several letters on mining in different parts of the country, and my attention was particularly drawn to one signed "Cardiganensis," calling on the writer, "Traveller," in his letters relating to the mines of Cardiganshire, to pursue a forthcoming translation of a "French letter on mining," before he estimated the future wealth anticipated from the deep working of mines in that country. In looking through "Traveller's" letter, I cannot discover that he would draw attention to the future prospects of the deep, or shallow, workings of the mines in that country. If an inducement was exhibited, I should imagine it to be in favour of greater capital. The writer, perhaps, wishes to detract attention from mining in Cardiganshire, in order to draw attention to some speculation which he has at present in hand, or intends having, in France. It is all very well to talk of foreign mining; but the result of carrying out these schemes in practice for the last 20 years, should, I think, bring parties reading the French letter, when translated to a consideration, and a perusal of a series of letters and reports of foreign mining within the last 20 years, which gave such facility to raising 15,000,000*l.* or 20,000,000*l.* sterling of English capital, the greater part of which has found a grave in these countries, and numbers of our English subjects, employed in the conducting of them, brought to a premature end, leaving widows and families destitute to lament their loss, and the few remaining suffered severely from the unhealthy climate. In addition to this, many gentlemen speculators, flushed with the flourishing reports of foreign mining, embarked their all, and many have been ruined. That mines near the Equator may be a little richer in their produce, I do not mean to deny; still, as a rule, it will not hold good, that it is a better "mining country," and it is not a question with me, considering the great facilities connected with mining, the skill, and the number of people trained for earning their bread by them, whether this is not the best mining country in the world, for Englishmen and English capital.

December 2.

AN ADVENTURER.

MINING IN CARDIGANSHIRE.

Sir,—Permit me to say a few words in reply to "Cymro's" straightforward and, I believe, honest letter on Cwmystwith Mine. I will just give a transverse section of the two lodes, which I was given to understand, existed in that mine, and has been productive in workings above the slide. The 30 fms. broad of clay-slate, mentioned in your correspondent's letter, I take to be the filling up with secondary formation between



the hanging wall side of the lode and the lode itself—the heave having taken place to the north, carrying with it a part of the Comet lode (the lost part), and after deposits, forming the flat of ore mentioned, leaving the hanging-wall side of the lode, after the heave, 30 fms. to the south of the lode—this opening being afterwards filled up with what may be more

properly called the schistus or shale. I beg, therefore, to suggest, for his consideration, whether the lode found under the slide may not be the north lode, instead of the Comet, as he calls it; and whether the Comet lode is not 25 fms. to the south, on a base line from a shaft, if sunk perpendicular 20 fms. from the junction of the Comet lode, with the slide leaving when cut 2 or 3 fms. back to the slide. If I am right, the transverse section will be something like the above diagram, when, on the spot, I calculated the heave to have been more than "Cymro" describes it to be; if so, both the lodes would, according to my notion, have been south from the bottom of the junction of the Comet lode with the slide. I merely give these particulars, to show the data on which my estimate of the expensive trial mentioned was founded, and to show that I cannot at present be reconciled to any other belief, but a great heave, and the lode supposed to be the "Comet," under the slide, is really not it, but some other.—*TRAVELLER: December 3.*

MARSH'S TEST FOR ARSENIC.

SIR.—While no one can more sincerely rejoice than myself at the humble tribute of 20*l.* a year being awarded to the widow of James Marsh, I must confess, that I esteem his method of detecting arsenic—said to do so to the one-half millionth part of a grain!—as exceedingly equivocal, if not entirely worthless, secondary and subsidiary at the best. My reasons are—that the zinc employed is rarely free from arsenic, and the hydrochloric acid usually contains it. Besides, he is an acute chemist indeed, who will venture to adjudge the stain deposited on the porcelain surface, to be, in very deed, arsenic, and not antimony! True, it has been recommended to bring in contact with it, a funnel charged with steam to develop the oxide, to be subsequently followed by the silver test! The history of Madame Lafrage's case should teach us caution in tampering with such serious matters; and the case of the woman who was executed at Glasgow on a supposed case of poisoning by *oxyum*, the only test applied for the detection of which being *permuriate of iron*! when it was subsequently proved, that the *saliva* of the mouth would produce a similar indication, should confirm the hesitation! For my own part, I shall have nothing to do with analyses in cases of poisoning, as long as the punishment of DEATH remains a blot on the statute-book. J. MURRAY.

THE OXIDATION OF IRON.

SIR.—In his remarks on the oxidation of iron, Mr. Spencer, of Liverpool, seems to have overlooked two powerfully operating causes—viz.: the action of the sunbeams, and the generation of *nitrous acid* in the thunder-storm. I remember to have remarked, on the summit of the leaning Tower of Pisa, that the circular iron rail was most corroded where longest exposed to the solar rays. It may be added, that the iron cross planted on the top of Mount Rosa, among the Alps of Switzerland, remained uncorroded after a lapse of two or three years—an elevation above the storm cloud.—J. MURRAY: *Portland-place, Hull, Nov. 29.*

GEOLOGY.

SIR.—The remarks which I had tendered to the public, on the subject of geological phenomena, were FACTS, irrespective of all theory. It will be remembered, that I was rudely assailed by crude assumptions and speculative fancies—nay, even assertions, as in the matter of granite said to have been discovered in Guernsey, with ORGANIC REMAINS, but which I proved on the spot where it was said to have been found, to be entirely false; these circumstances induced me to abandon the task I had proposed for myself. It cannot be doubted, that romantic fancies and visionary assumptions have obscured the intellect of modern geologists, and speculation has ever been the bane of sober reason and legitimate science. Are not the creations and cataclysms of Mr. Charles Lyell, the ice boats of Sir R. I. Murchison, the glacial absurdities of Agassiz, and the whirling fancies of Buckland, like Ossian's ghosts—"Dim forms of unencircled shade?"—and do not the sober realities of truth laugh these fancies to scorn? Can we be surprised that such a flimsy tissue of erroneous dogmatism, as is exhibited in that silly and frivolous romance, the *Vestiges of Creation*, should emanate from such a chaos of folly?—a plaything of tinsel and trumpery—an *ad captandum* toy for superficial thinkers and baby minds. Verily, Messieurs the geologists have themselves to blame for originating such tomfooleries as those of which the *Vestiges of Creation* is an example—a spurious thing grounded on an assumption of fact, in reference to the phenomena of geology. Geologists will be cosmogonists—*hinc ille lacrymæ*. They have adventured on sacred ground—"Fools will rush in where angels fear to tread." What marvel that they have done despite to truth, and marred the features of a beautiful and wondrous science; and that so many votaries have, in consequence, revolted from the ranks of science, embracing geology. With the primary act of creation, legitimate geology has nothing to do—molten masses and central fires, *et hoc genus omne*, the simple and unsophisticated advocate of truth will let alone. I have witnessed the rise and fall of many a fanciful hypothesis in geology, and a long-lived experience of their futility and folly, with their wreck and ruin before me, has taught me caution and circumspection. I shall (D. V.), if leisure allows, endeavour to advance the geological evidence of an UNIVERSAL DELUGE. The Scripture testimony I have nothing to do with, and shall not meddle with, nor shall I imitate, chew! too many geologists, in tampering with a thing so sacred as these immutable hopes. I shall adduce my warrant for the conclusion, in the FACTS of the case, and leave them—*ponderibus librata suis*. *Portland-place, Hull, Nov. 27.* J. MURRAY.

FLOATAGE OF SUBMERGED BODIES, &c.

SIR.—Many years ago I proposed the following simple method of causing the floatage of submerged bodies:—An appendage for generating carbonic acid gas from powdered marble and sulphuric acid was attached to a flaccid bag of Mackintosh cloth, when the acid was allowed to flow through a leaden stop-cock into the compartment containing the marble, the gas generated, inflated the bag, which, being attached by the diver to the submerged material, occasioned its rise to the surface of the water. I have no doubt this method might be profitably employed in the obtaining of the oyster in the pearl fishery, being attached to a dredge; and, above all, in effecting an extensive buoyancy in escape from shipwreck. *Portland-place, Hull, Nov. 29.* J. MURRAY.

THE SPRAY PUMP.

SIR.—There is nothing surprising in the force of winds extracted by Mr. Blewitt, if we consider that high winds press with a force from 10 lbs. to 30 lbs. per square foot, and that the laws of accelerated motion are, in some degree, brought to bear upon the water, the force of the wind being constant on every point of the line of its direction along the lake—so that this immense power becomes aggravated, as the increasing elevation of the water exposes it more vertically to the wind's motion. Were Mr. Blewitt to cover the whole surface of 10 miles, and apply the impetus merely to one end of the lake, he would have to raise the wind most effectually, to propagate any impulse whatever to the other. *Coleford, Nov. 30.* DAVID MUSHET.

MR. RYAN'S THEORY.

SIR.—It having been attempted by one or two of your correspondents to discredit the accuracy of my comparison betwixt the Staffordshire and Dean Forest coal-fields, I beg to state, that the Staffordshire coal is now selling in the Gloucester market at 5*s.* per ton more than the best Forest coal, and that this difference is not more than the ordinary average. *Coleford, Nov. 30.* DAVID MUSHET.

JONES'S GAS EXHAUSTER.

SIR.—I apprehend there must be some errors in your report of the meeting of the Institution of Mechanical Engineers, at Birmingham, as published in last week's Journal. Take, for instance, the article on "Jones's Gas Exhauster," in the discussion of which, Mr. Clift says, or is made to say—"When I see that the best-constructed fan, at its greatest velocity, will only maintain a density of air equal to a column of water of 10 in., or a pressure of about 15 ozs. on the square inch," is there any inaccuracy in this statement?—If 10 in. of water be equal to about $\frac{1}{4}$ th of the atmospheric pressure, and this force be equal to 15 lbs. \times 16 ozs. = 240 lbs., which, being divided by 40 (the fractional exponent of fan pressure), we obtain 6 ozs. instead of 15 ozs.! This cannot be an oversight; because we find the same methodical error repeated in the expression, that 75 ozs. per square inch is represented as the elasticity of air under an aqueous column of 50 in., or $\frac{1}{4}$ th, this = 8 nearly; and $\frac{1}{2}$ th, this = 30 ozs., instead of 75 ozs., per square inch! Then, again, "with a pressure of 15 in. of water, or 22½ ozs. on the square inch," which ought to be 396 in. \div 15 in. = 26 nearly; and 240 ozs. \div 26 = 9 ozs. pressure. So much for Mr. Clift's system of calculation—and now for Mr. Buckle's

statements; and here it may be said that, if this gentleman's report on "the fan blast" be no more accurate than the statements of his argument with Mr. Clift, the public will not lose by the non-publication of Mr. Buckle's paper at least. Mr. Buckle objects to Mr. Clift's, "that the blast necessary to furnish two air furnaces, producing 120 tons of pig-iron per week, was 11,278 cubic feet per minute, requiring a blast cylinder, 90 in. diameter, with 8-ft. stroke;" and shall I say, 15 strokes per minute, the least speed of such a machine. These data will give 857,320 cubic feet of air per ton of iron smelted! Now, what is the real fact? It is well ascertained, that "the hot-blast" reduces the quantity, or volume, of air, required in cold-blast smelting, about one-third per ton of iron smelted; and, as I am acquainted with several foundries where hot and cold blast are used respectively, I will assert as fact, that a blowing cylinder, of 5 ft. diameter, 8-ft. stroke, 22½ strokes per minute, is more than sufficient to blow three full-sized stacks, making 166 tons of iron per week, of six days and nine hours, besides allowing one hour each day for cessation of blast, during the act of "tapping;" and that 490,000 cubic feet of cold blast is found more than sufficient to produce the ton of pig-iron, which, for the hot-blast, would be in excess by $\frac{490,000}{3} = 163,333$ —so that, in practice, the volume of hot-air required to smelt one ton of iron is 330,000 cubic feet, instead of Mr. Buckle's quantity of 857,000, or about one-third of his objection to Mr. E. Clift! The members attendant upon these relations, must indeed be the veriest neophytes in existence—because, whilst we find the gas-exhauster, and showing their scepticism by the answers "not appearing to satisfy," not a word is mentioned about far greater discrepancies. Does Mr. Buckle imagine that diameter has any considerable influence upon the density produced by a fan-blower? If I had the opportunity of reading a paper at the Institution of Mechanical Engineers, I could adduce three practical facts, which go to prove that, with sufficient scope of gyration, and, consequently, of centrifugality, any density of blast may be obtained with a fan-blower.

In conclusion, I would ask of Mr. Buckle, Mr. R. Mushet, or any other correspondent, how it is that, when 170 cubic feet of air, used as cold blast to smelt iron, was enough to oxidate 1 lb. of coke, 120 cubic feet was required at 300°, and 112 cubic feet of air at 600° Fah., to consume the same fuel?—and then, how the Institution of Mechanical Engineers are so far abroad as to express surprise at Mr. Buckle's former statement, of 224 lbs. of coke being sufficient to melt one ton of pig-iron by the use of 36,000 cubic feet of blast, equal to 156 ft. of air, to 1 lb. of coke? *Barnsbury Park, London, Nov. 29.* W. RADLEY, CH. E.

ON STEAM-PRESSURE GAUGES.

SIR.—At present much attention is being directed to these instruments, and two of different construction are before the public—the one an improvement on the Mariotte gauge, by Mr. Baker, of Hatton-garden; and the other an invention patented by Mr. Sidney Smith, of Nottingham. These gauges have been, within the last few days, fixed at the Polytechnic Institution, in order to test their relative merits, before entering into an account of the experiments. Most of your readers are, no doubt, conversant with the fact, that the two gauges mostly in use amongst engineers are the ∇ gauge, and a gauge acting by the compression exerted on a column of air. This gauge owes its origin to a law discovered by Dr. Boyle, in 1662, but which was afterwards re-discovered by Mariotte, apparently without any knowledge of the discovery of his predecessor. In 1825, Prof. Oersted instituted a most elaborate course of experiments, which proved the law of the compression of gases to be general, and the gauge mostly in use at the present day is one which owes its origin to the learned professor's investigations, but known by the name of the Mariotte gauge, and, when used with care, I may add, a most invaluable instrument. The first I shall direct attention to, now in action at the Polytechnic, is an improvement in the Mariotte gauge, by an alteration in the arrangement of the index, which prevents the necessity of constantly adding to the indicated results, the extra pressure due to the elevation of the column of mercury, which is known to be 1 lb. for every 2 in.; this has often led to error, when the true construction of the gauge has not been understood; this gauge, when tested against the long ∇ gauge affixed to the boiler at the Institution, was found to register correct, the amount of error being less than $\frac{1}{4}$ lb. to the square inch at the highest pressures employed. The long ∇ gauge had, I may add, been carefully adjusted by the able demonstrator of mechanics at that Institution (Mr. Crisp), and found exactly to correspond with the pressure to which the valves were loaded; but, in the present instance, the other gauge (the invention of Mr. Smith) did not give correct results—this I was much surprised at, having read the flattering encomium passed upon it by Mr. George Stephenson—a gentleman whose position in society must place him above all suspicion as to its correctness.

In the present instance, the amount of error was but small, up to pressures under 10 lbs. to the square inch; the amount of error then rapidly increased, and at 26 lbs. was over 10 lbs. to the square inch in error, that error being in excess, the gauge registering nearly 37 lbs.; whilst the other two stood steadily at 26. During my inquiries into the matter, relative to the unfortunate engineer, Huesman, I had an opportunity of witnessing another of Mr. Sydney Smith's gauges, that had been placed on board the *Adelphi*, which also registered incorrectly. When I went on board the vessel, at the Adelphi, I found steam blowing from the safety-valves. The valves of this vessel are $\frac{3}{4}$ in. diameter; fulcrum, $2\frac{1}{2}$ in.; length of lever, 27½ in.; with a weight on the lever of 29½ lbs., placed rather over 2 in. from the end. Now this, taken roughly, without weight of valve, or steelyard lever, would, if the weight was at the end of the lever, give rather over 60 lbs. on each square inch in the boiler; and when, as when I saw it, 2 in. nearer the fulcrum, of about 56—whilst the gauge indicated 95 lbs. to the inch. When we arrived at Dyer's Hall, about 8 min. 30 sec., the index hand then pointed to 75; whilst lying at the pier, landing and embarking, it still remained at 75, although the steam had increased to a sufficient degree of elasticity to again lift the valve. On the engineer tapping the case gently with his hand, previous to the vessel starting, the index then pointed to 80, where it remained perfectly steady at 80, although the steam had fallen considerably under the pressure requisite to lift the valves, then loaded, at about 56 lbs. to the inch. From the construction of the gauge, which is, in outward appearance, not unlike a chronometer, placed on its side, and exceedingly compact, I should deem it a valuable instrument, if its indications were at all times to be relied on. Its internal construction is somewhat similar to several weighing machines, and owes its origin from the fact, that a quadrant of any metal, when freely suspended, will hang vertically—the centre of the quadrant being the centre of gravity of the mass; and, upon such weight being brought from the vertical position—the position at zero—the quadrant presents a constantly-increasing leverage, until it assumes a horizontal position, when its maximum pressure will be exerted. It is an exceedingly ingenious contrivance, and I hope the inventor, or Mr. Stephenson—in whose hands it would undergo a most searching investigation—may forward to your columns a probable solution of its registering erroneously, in the two foregoing cases. *Park-terrace, Battersea, Dec. 2.* E. WHITLEY BAKER.

RAILWAY TRAIN SIGNALS.

SIR.—I rejoice to find, that the public interest has been at last awakened, to the necessity of having a means of communicating between passengers, guards, and engine-drivers, upon railways; and I hope that you will assign to me a brief space in your Journal, to make a few remarks respecting the two most prominent plans now before the public—namely, that of effecting the object by means of *galsanism*, and that by means of *lamps and flags*. In the month of August, 1845, I went to considerable expense, in having a model train, furnished with a means of communication by electricity, and using the *safety chains*, with intermediate wires, as my circuit—(the using of the safety chains is the grand feature in Messrs. Brett and Little's, Mr. Allen's, and a host of other's inventions.) I caused an alarm to ring, the dial to give signals, and the explosion of a percussion cap, as signals of danger, &c. I then thought the great problem was actually and fairly solved, and, of course, in my youthful ambition, communicated my discovery to the Editor of an influential journal, who gave me to understand, in his "Notices to Correspondents," in August, 1845, that my plan was manifestly impracticable; but a few weeks ago, when Messrs. Brett and Little repeated the same experiments upon the Brighton line, the same journal proclaimed to the world, that those gentlemen had succeeded in solving the great problem; and, as a finale, I was soon, after my above-mentioned adventures, informed, that the application of electricity for railway train signals was a patent right; and my railway train was forthwith detached, and the tiny carriages were (except one, which I have kept as a relic) distributed amongst some of my friends, who, no doubt, were satisfied with the result of my misadventure. The above facts I am ready to prove, should any one feel the least annoyed by them. Again, I find that Mr. Connell, of the Great Northern Railway, has

submitted a plan, of communicating between the guards and engine-drivers, to the Railway Commissioners, who, it is stated, have approved of it. Now, Sir, I wrote to the said Commissioners as early as the 25th of June last, urging the adoption of *flags and lights*, as the means of effecting the purpose, and suggested, also, that the guard in the foremost part of the train should keep a look out, and that he was to call the attention of the driver with a powerful whistle, &c. The same description is applicable to Mr. Connell's plan, which, however, has met the approval of the Commissioners; but, in reply to my communication, they said—"That they (the commissioners) had no power to compel the adoption of anything of the kind upon any railway, and that an application upon my part, to some railway company, would be more likely to answer the end I had in view." I wrote there and then to the chairman of a railway company; but I confess, though I did not expect a satisfactory reply, I did hope for an acknowledgment of its receipt, but with which I have not yet been favoured. Now, Sir, I do not wish to monopolise all the merit in connection with the above subject, but I hope that the public will grant, that I have contributed, to some extent, through the medium of the public press, to "keep the great signal league alive." OWEN ROWLAND.

Mecklenburgh-square, Nov. 29.

COMMUNICATION BETWEEN GUARDS AND ENGINE-DRIVERS.

SIR.—Seeing in your note to Messrs. Brett and Little's letter, contained in your last Journal, that you conceive the question of priority settled (which it certainly is, in respect to the reading of my paper at Birmingham, at least), inasmuch as a description of their plan is contained in the book forwarded to you, and which, as Mr. Brett informs me, was printed in September last, I trust you will allow me space enough to give some explanation of the matter. It will be seen, by reference to my letter contained in your Number for 20th Nov., that two days elapsed between the date of it, and that of the postscript, during which time I called upon Messrs. Brett and Little, for the purpose of talking the subject over, as I was very unwilling to make any suspicion public, which might be found groundless. What could possibly be easier, than for Mr. Little, on that occasion, to show me the book sent to you? It is especially remarkable, as, being in the habit of plain speaking, I informed him of my suspicion, as I had seen no account of their plan until after my paper had been read. But what did he do? He referred me to the deposit made in January with the Attorney-General, and said, I should there find they had patented every application of a certain principle; and, further, that they should oppose any one making use of the plan, including, as he said, an other person who had obtained a patent for the same thing. Knowing, then, as I did, from having read their specification, which contains not a single word on train alarms, that all this was perfect nonsense, and which I told him—was my conclusion unreasonable—viz.: that my suspicion was just? I even now believe that my paper must have brought the subject again before them, and was the cause of the experiment being made. Notwithstanding all this, on the evening of the 24th ult., when at the Society of Arts, upon my observing to Messrs. Brett and Little that I was glad to find they had excluded the word patent from the title of their paper, Mr. Brett informed me, that they did not pretend to say their plan was patented. I trust you and your readers will, from this, grant that I had reasonable ground for believing my suspicion just, even although it were at first too hastily conceived. Having now, then, been proved to have been wrong, and having proved (as I hope) that I was not so without having reason to be so, I will take the liberty of adding a few words on the subject of the priority of our inventions; and in offering proof for that of my own, I cannot do better than send for your inspection a letter received from the Commissioners of Railways, dated July 2, and which was in reply to one sent by me, and accompanied by the same drawing that was exhibited at the Society of Arts, on the 24th ult.—the identity of which can be proved, as the signature of the secretary of the Commissioners appears on the back of it. My plan was shown to about 20 engineers about a week after the accident to the Bishop of Exeter, the date of which I do not now remember; and it does seem very possible that between this and Sept. there elapsed sufficient time for the plan to get some wind, and find its way in an improved form (?) into the hands of those wishing to appropriate it to themselves. I do not say, for a moment, that Messrs. Brett and Little took their idea from me, and I should never have dreamed of it, but from their experiment appearing after my paper had been read; but I do think the least they can do is to say they did not, which they have not done, even to me—in fact, I think I have said enough to throw upon them the onus of proving themselves the inventors of the plan, and that reasonably enough, inasmuch, as upon the occasion of my visit, if any satisfactory explanation could be given, why was it not? Nothing could have been more easy, especially with me, being, as I was, prepared to listen attentively for any length of time. EDWARD E. ALLEN.

Argyll-street, Dec. 2.

RAILWAY LABOURERS.

SIR.—Observing by your Journal, and other periodicals, the fact of the discharge of some thousands of "navvies," and that, in consequence, crime is on the increase, allow me to suggest, as a preventive against the men becoming burdensome, that they should be at liberty to enter regiments of engineers, to be disciplined by the spring. Then let them, or such as may not be wanted here, be sent to the colonies to make roads, railroads, &c.; and their rations, in the first instance, be provided by Government. Such as consent might afterwards be located along the lines in wooden houses, to be built in the Canadian style. Women to be sent out as emigrants, or free settlers, and married men to take their wives; and, on being settled, to be charged a trifling rent, sufficient to pay off the amount expended in (say) 20 years; 200,000 persons might be annually sent out, instead of about 20,000, as at present, which, while it would help to clear this swarming hive, would increase the population, and produce plenty and success in our widely-extended colonial territories. *Penzance, Nov. 11.* A. T. J. MARTIN.

ADCOCK'S SPRAY PUMP.

SIR.—In reference to the spray pump, I beg to inquire, what is the object, and what will be the effect, of expanding the area of the upcast-pipe as they approach the surface, in order to reduce the velocity of the effluent current? Such, Sir, is the question of Mr. David Mushet, in your last publication, and I reply to it thus—By the "law of gravitation," it is well-known that, if a body be allowed to fall freely through space, it will descend through 16 1-12th feet in the first second of time; and it will, at the end of that second, have acquired a velocity which, if continued uniformly, would take it through 32 1-6th feet in the next second of time. But as, in the first second, the body proceeded with an accelerating velocity—commencing from a state of rest, and terminating with a speed of 32 1-6th feet per second—so, also, by the same law, it will not move uniformly in the next second—32 1-6th feet; but will, as before, proceed with an accelerating velocity, and, at the end of that second, will be moving with the speed of 64½ feet; and, at the end of a third similar interval of time, with a speed of 96½ feet per second. Hence, it will be perceived that, if the speed of the moving body at the commencement, and at the end of each second, be added together, and be divided by 2, to obtain the mean, the space fallen through, in every consecutive second, will be known:—

First second, $\frac{0+32\frac{1}{6}}{2} = 16\frac{1}{12}$ feet.

Second ditto, $\frac{32\frac{1}{6}+64\frac{1}{2}}{2} = 48\frac{1}{4}$ feet.

Third ditto, $\frac{64\frac{1}{2}+96\frac{1}{2}}{2} = 80\frac{1}{2}$ feet.

That is, in the first second, the space passed through will be 16 1-12th feet; in the second, 48½ feet; and in the third, 80½ feet. Again, if the numbers thus obtained be added together, the entire space fallen through at the end of the several consecutive seconds will be indexed. In illustration of this:—Space fallen through at the end of the first second, 16 1-12th feet; at the end of the second, 16 1-12th + 48½ = 64½ feet; and at the end of the third, 64½ + 80½ = 145½ feet.

There is, however, a much simpler mode of arriving at this required information; it is this:—That, in bodies descending freely by their own weight, the velocities are as the times, and the spaces passed through as the squares of the times; therefore, if the time, in seconds, be expressed by 1, 2, 3, 4, 5, &c., the velocity acquired at the end of each second will be 32 1-6th feet, multiplied by 1, 2, 3, 4, 5, &c.; and the space fallen through, at the end of each second, will be 16 1-12th feet, multiplied by 1, 4, 9, 16, 25, &c. Hence the following table:—

Time in seconds.	Velocity acquired at the end of each second.	Distance fallen through by the end of each second.
1	32 1-6th feet	16 1-12th feet
2	64½ "	64½ "
3	96½ "	145½ "
4	128 "	256 "
5	160 5-6th "	402 1-12th "
&c.	&c.	&c.

By reflecting on this law of Nature, *universally*, it will be perceived, that if the balls, or drops of water, in the upcast-pipe, be put in motion with the rates of speed expressed in the second column of the table, and the power which gave them motion be instantaneously withdrawn, or annihilated, those drops will, from the velocities they have acquired, continue their upward movement, until they have ascended to, or reached, the heights expressed in the third column of the table.

In my patented invention, the spray pump, I avail myself of this law, by so proportioning the upcast-pipe at the bottom of the mine—duly considered with reference to the friction of the effluent current—that I obtain thereby the maximum of effect. It, therefore, becomes necessary so to expand the upcast-pipe as it approaches the surface, that the balls, or drops, of water may not absorb power that is not wanted by them, but continue their upward, and gradually ascending, motion, until they deliver themselves at the top, by the impetus that had been imparted to them.

In addition to the preceding, two other important reasons may be assigned for expanding, upwards, the upcast-pipe:—1. The gradual reduction of the weight of the supports

For, $\frac{113+226}{2} = 169\frac{1}{2}$ average
And, $\frac{113 \text{ in.} \times 2 \text{ lbs.}}{169\frac{1}{2} \text{ in.}} = 1\frac{1}{2} \text{ lb.}$

★ ADCOCK'S SPRAY PUMP.

2. Copies of testimonials, with any details demonstrating its practical utility.

3. A summary of remarks on these several orders, so executed, including, in particular, notices of the longest period for which any such spray pump has been continuously at work.

If possible, the longest continuous action.

By your paper of the 18th Sept., we are informed, the spray pump was "put down at Fernbenton Pit, near Wigan, which was daily in operation many weeks—doing its duty most effectively" and, by Mr. Adcock's pamphlet, it appears to have been applied also at the same place, for the purpose of spraying the walls of the mine.

It is not, however, stated, whether the pump was used for spraying the walls of the mine, or for spraying the water, or for spraying the air.

The spray pump, in practical operation, have proved abortive, and, for some inexplicable reason, they have, in both of these instances, been thrown out of use, and totally discarded.

Now, mine proprietors are certainly not, generally, so blinded to their interests, as would be supposed, and, if the pump had been found to be of any use, it would have been adopted.

The adoption of the spray pump, J. B. C. *Birkenhead, Nov. 29.*

MR. MUSHET—MR. RADLEY—SIR T. B. LETHBRIDGE.

Sir,—I trust you will allow me briefly to exonerate myself from Mr. Radley's aspersions. Sir T. Lethbridge wrote to me upon the 6th of October, and incidentally mentioned Mr. Radley as follows:—"I have an offer from Mr. Radley, in London, to smelt, at my own works, my rich ore, and I shall be inclined to try him. This is all that ever passed from Sir T. Lethbridge to me respecting Mr. Radley, or his processes. In my reply, I stated, that I did not think Mr. Radley could do any good, either for himself, or for me, in the way of smelting, and that I should not be disposed to give any property to one to whom I should experiment a work for him at Luxborough, or Lotherbrake; I very candidly told him, that the situation was a bad one; and that I did not feel that I should act with honour in recommending the erection of an iron-works at Lotherbrake. Mr. Radley has been less scrupulous, though he is aware that neither coal, charcoal, or peat, are to be had for any reasonable cost at Lotherbrake; nor are there any workmen upon the spot, who could be employed to smelt his ore; and he has been so far from being scrupulous, that he is Mr. Radley, who now openly declares that he has been in confidential communication to Sir Thomas Lethbridge,— whilst I have never, either in words or in writing, received one iota of information from Sir Thomas Lethbridge bearing the slightest allusion to any process of Mr. Radley's, except the above quotation, which, I submit, is no breach of confidence upon the part of Sir Thomas Lethbridge towards Mr. Radley. I may as well say, that I have never been persecuted, either by Sir T. Lethbridge, or by any other party, the communication above mentioned, being made to me indirectly, with an assurance, on my part, that with me his secret was as safe as with himself,—I having nothing whatever to do with any dispute between Mr. Radley and Sir T. Lethbridge; and Mr. Radley is welcome to the information he has obtained by a perusal of my confidential letter to Sir T. Lethbridge. If Mr. Radley has really seen a plan of my improved mode of constructing a blast-furnace, I do not, for a moment, doubt his power of making it his own, and of selling it to any one who will give him 1000*l.* per ton of iron. In the year 1836-7, I stood with my late father in a very complete set of experiments on the production of steel from a puddling-furnace. The ores operated upon were the Indian Woods ore, the Gumbler and kidney ore, the Brimham hematite, a black magnetic ore from Norway, the hydrated peroxide of iron, called brush ore, and some very fine samples of *fer-olivine* and red hematite from New Brunswick. Steel was made from all these ores, and the quality of the steel was exceedingly superior for profit; but, in every case, the quality of the steel was *exceedingly inferior*. Like most great and original inventors, my late father had through life to struggle with pecuniary difficulties of the most arduous nature, and could never command the capital necessary to carry out his valuable discoveries, or to obtain legal redress from those by whom his patented inventions were, and now are, unscrupulously pirated. In conclusion, let me say, that I have no objection to Mr. Radley's publication, any unassented scribbling which I may forward to him for rejection. This will give him the opportunity of saying, which, if necessary, to rebuke myself to school,—for I hope I shall never be too old to learn,—and find that, since the 6th of October, I have received only three letters from Sir T. Lethbridge; and in these there occurs not one allusion, either to Mr. Radley or to his processes. If Mr. Radley doubts this assertion, I have no objection to lay the letters before him, and to let him say for Mr. Radley's *propius*! as applied to me. With respect to Mr. Radley's concluding remark,—"I have been in confidential communication with Sir Thomas Lethbridge,"—this is a very singular application of the proverb—"Chi dà piglia na cenen te nacen te rozo!"—is at all likely to be confirmed in this particular instance.—ROBERT MUIRER: Colerford, Nov. 29.

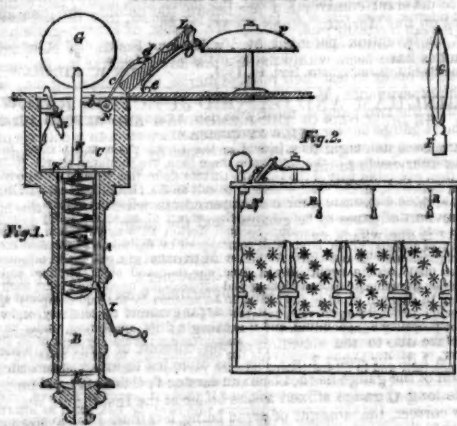
MR. RADLEY AND THE LOTHBROKE IRON-WORKS.

We have received a strong communication from Mr. Hadley on the subject of his connection with the Lotherborg Iron-Works, denied in a short letter, published in the *Mining Journal* of the 20th ult., from Sir T. B. Lethbridge, Bart., the owner. We are sorry to be obliged to decline inserting the communication entire, containing as it does so many observations of a private nature, and, moreover, a large amount of personal remark, totally irrelevant to the question. It is, however, doubtless apparent, from Mr. Hadley's statements, that he had been engaged by Sir T. Lethbridge—had received a cheque to pay his expenses—and had a *carte blanche* "to do and order whatever he thought proper." The facts are briefly as follows:—About July last, an advertisement appeared in the *Times* and *Standard* for Sir Thomas Lethbridge, Bart., in reference to a Mr. Woolcott. Knowing that to be the name of Sir Thomas Lethbridge's steward, he concluded it was on behalf of the baronet, and addressed a note to Mr. Woolcott accordingly. He received a reply from Sir Thomas, of which the following is an extract:—"He particularly requests the communication of Mr. Hadley's method of making iron and steel"—and, in a further communication, "what I want is, to see my ore smelted on the spot, or sold to some person at a distance who would smelt it. If you can aid me in this affair, you *may* better inform me fully of your plans—they will not go beyond me, and I will be prepared to give you such success, as will help to carry them out." Mr. Hadley then proceeded to the iron-works, and, after some time, he was sent to the baronet's residence, to be permitted to continue his researches, and to be furnished with a licence for insertion— suffice it to say, he received a cheque to pay his expenses to Sandhill Park and back to London; and, on the 13th of October, had an interview with the baronet, which lasted from half-past 10 to 2. Further interviews and correspondence took place, which terminated in his setting off to Luxborough—the site of the baronet's iron and steel works—and returned to Sandhill; and, after a further interview of six hours, he left with a *carte blanche* to do and, to order whatever he thought requisite. His references were written to— which were "perfectly satisfactory"—and a memorandum of the terms was drawn up, and forwarded to Mr. Hadley for approval and signature. The terms were for three years certain, and for the next three years, at the rate of 10 pence for an assistant—four months' notice, by either party to be given, when the baronet was to cease and determine. From these facts, Mr. Hadley leaves the public to judge whether Sir Thomas or himself is in the right.

EXPERIMENTS ON STRENGTH OF CAST-IRON.—Some interesting and important experiments were made at the Crace Foundry in July and August, on the relative strength of cast-iron, chilled and unchilled. Two bars, run from the same pot of metal, were employed; the unchilled bar was $\frac{1}{2}$ in. in width at the top edge, 1 in. at bottom, $1\frac{1}{2}$ in. deep, and 4 ft. long; the area of the cross section was 1.125, and width between supports 3 ft. 10 in. The chilled bar being run on a piece of cold iron, had contracted $\frac{1}{16}$ th of an inch less in width than the other on the bottom face, being, in other respects, precisely similar; the sectional area was thus reduced to 1.078, and the weight was only 12 lbs. 13 ozs., instead of 13 $\frac{1}{2}$ lbs. In 14 experiments, the deflection of the unchilled bar was from 0, with a weight of 3 qrs. 4 lbs., to 3437, with 6 cwts. 1 qr. 4 lbs.; while the chilled bar deflected, with weight of 7 cwts. 0 qrs. 4 lbs., 5321, and broke with a weight of 7 cwts. 1 qr. 4 lbs.; the unchilled bar broke with 6 cwts. 2 qrs. 4 lbs. The proportions of the strength of chilled and unchilled bars of cast-iron will, from the above experiments, be found as follows—viz.: as the area of the unchilled bar, 1.125 in., is to the area of the chilled bar, 1.078 in., so is 6.28 cwts.—the weight borne by the former—to 6.01, the weight which would have been borne by an unchilled bar of the same area—the process of chilling thus giving a superior strength of 17 per cent. The second experiment was made on four bars, cast in the form of a double-faced railway rail, $1\frac{1}{2}$ in. deep, $\frac{1}{2}$ in. wide at top and bottom, and $\frac{1}{2}$ in. in the centre—the length of each bar was 18 in., and 15 in. between the supports. No. 1 was cast in green sand; No. 2 in dry sand; No. 3 cast in a chill; and No. 4 in a chill, and afterwards annealed. No. 1 weighed 32 $\frac{1}{2}$ ozs., bore 1232 lbs., and deflected 130 in. No. 2 weighed 30 $\frac{1}{2}$ ozs., bore 1096 lbs., and deflected 114 in.; No. 3 weighed 34.75 ozs., bore 784 lbs., and deflected 553 in.; and No. 4 weighed 34 $\frac{1}{2}$ ozs., bore 2520 lbs., and deflected 148 in. The advantages in favour of cast-iron, treated as No. 4, is evidently little less than 100 per cent. over No. 1, and 300 per cent. over No. 3. With respect to the microscopic nature of the fracture, Nos. 1 and 2 presented nothing unusual; No. 3 presented a very singular appearance—it was highly crystallised, the whole formed of threads, radiating from the centre to the outer edges of the curves; No. 4 broke in two places, and showed the same granular structure as Nos. 1 and 2—the grains being much finer, resembling cast-steel.

This design consists in a novel configuration of wrench, or "spanner," whereby we are enabled to adjust the jaws to any required space (commensurate with the size of the instrument), with greater rapidity than heretofore, and to hold the moveable jaw secure in its position, without the employment of a screw, or worm. The drawing represents a side view of the improved wrench, or "spanner," showing the stem of the wrench, the top jaw, and the under moveable jaw. The front edge of the stem is serrated, and corresponding indentations are made in the same end of the slot in the lower jaw. At the other end of the slot is a cam-piece, provided with a thumb-piece, or lever, which, at the same time, supports the cam-piece in its place in the slot of the jaw, and allows of its being moved round. When the wrench, or spanner, is required to be adjusted, to take hold of a screw head, or nut, the smaller radius of the cam-piece is brought to the back edge of the stem, and thus space is left for the jaw to be slid up or down—the jaw having been set to the required position, the thumb-piece is pressed into the position shown in the drawing, whereby the larger radius is brought into contact with the stem. The pressure thus put on the stem causes it to lock its serrated edge in the indentations of the slot of the moveable jaw, and thus that jaw is held firmly in its place. The design is registered by Messrs. Smith and English, engineers, Princess-street, Leicester-square, and is much approved of, being adopted by several of the large engineering firms and railway companies.

CARRIAGE ALARUM.



[Specification of patent granted to John Kay, Esq., of Ringmore, near Teignmouth Devon, for a carriage alarm.—Registered 6 and 7 Vic., cap. 65.]

Although railway companies do not seem over zealous in the cause of railway safety, neither the public nor inventors have lost sight of the subject—thus we have another plan, for effecting the communication between passenger and guard, upon the occurrence of accidents to the former, to present to our readers. The proposition is one possessing much merit, and requiring no cumbrous arrangements, or connections, extending throughout the whole train, but is a simple apparatus, easily fitted and arranged. The description given by the author is, in effect, as follows:—The accompanying diagram exhibits two views of this design, drawn to a geometrical scale—fig. 1 being a transverse and vertical section of the alarm, showing the relative position of the several parts, as they would appear after using the apparatus; fig. 2, a transverse and vertical section of a first-class railway carriage, showing the application of this design thereto; fig. 3, an edge view of the polished reflector, hereafter referred to. A, A, a metal casing, the lower portion of which, marked B, is formed cylindrical, and the upper portion, C, is formed rectangular. This casing contains the following parts:—D, a helical spring, fitting loosely in the part, B, and retained therein by a screw-cap, E; F, marks a rod, to the upper extremity of which is affixed a highly-polished double convex reflector, G; and to the lower extremity of this rod there is fixed a piston, or plate, H, which fits loosely in the part, B; I, a spring-catch, for retaining the parts, F, G, H, in the position exhibited at fig. 1; K, a metal plate, fixed to the bottom of the part, C, of the casing, A, A, having a hole at its centre, through which passes, and is guided, the rod, F; L, a lid, or cover, hinged to the roof of the carriage (as shown at fig. 2), being held and released in the manner following:—To the part, C, of the casing, A, is attached a lever-catch, M, the upper part of which is formed with a hook, and the lower part has a pin, a, fixed therein; N, a helical coil of wire—one end of which, b, is fixed to the side of the casing, and the other end, c, is straightened, and terminates in an anti-friction wheel, d, which, at all times, presses against the inner surface of the lid, or cover, L, for the purpose of causing the hammer, O, fixed to the said lid, to strike the bell, P, fixed to the carriage top; the opposite end of this hammer terminates in a spring, e, to cause the hammer to recoil, after it has struck the bell. The effect of this arrangement is as follows:—Assuming the reflector, G, to be pushed down and the spring, D, thereby collapsed, the catch, I, will hold it in that position, until such catch is released by pressure, being applied either directly to the stud, Q, or through the agency of the pulls, R, R, by which the edge of the reflector, G, being pressed by the said spring against the pin, a, will release the lid, or cover, L (assuming it to have been closed down, and held by the catch, M), which will be forcibly thrown back by the spring, N, and the hammer striking the bell, will give a signal to the guard of the train—at the same instant, the reflector, G, will be forced up, by which the guard will know from whence the signal is given. This reflector may be rendered available by night, by causing the rays of light, from the roof lamp of the carriage, to be directed upon it, when released from the casing. The part, or parts, of this design, which are not new, or original, are all the parts, if considered *per se*, and apart from the purposes of this design; but as forming such design, they constitute the entirely new design, as regards the general shape and configuration, exhibited by the drawing, and before described.

Patent-office and Designs Registry, 710, Strand, Nov. 30.

IMPROVEMENTS IN RAILWAY WHEELS.—Mr. B. T. Stratton, of Bristol, has obtained a patent for a new description of wheel, which may be applied to carriages for common roads, or for railways. The spokes are constructed of "sectoral shaped loops" of corrugated or hollow iron, of any form of section; or of flat, round, or oval rods of iron, or of angle or T iron. These spokes are placed with their flat sides in contact, radiating from the centre, and are fastened together by bolting, riveting, or welding; the nave is then cast upon the inner ends of the spokes, after which the spaces at the outer part of the spokes are filled, or partly filled, with wood, iron, or other suitable material, and a tire, put on in the usual manner, completes the wheel. For railway wheels, a straight radial spoke is placed between every pair of sectoral spokes.

IMPROVEMENTS IN GAS MANUFACTURE.—Mr. R. Welker, of Rochdale, Lancashire, has taken out a patent for an improvement in the mode of fixing the vertical tubes which connect the retorts with the hydraulic main, and convey the gas thereto. It merely consists of carrying the vertical pipe about 2 in. downwards below the inside roof of the retort, instead of bolting them to a flange on the outside, as is the custom at present. It is well known that, by the present method, the tubes are continually getting choked with tar, &c., and require what the workmen call "jumping;" but, by this simple alteration, the patentee states, that as the tar ascends the sides of the retort, instead of passing up the vertical tube, it will settle round it, and drop off on to the bottom of the retort—the pipes remaining clear.

MEETINGS DURING THE ENSUING WEEK

TUESDAY..... Wind, Stations, and South-Western Railway—Nine Elms Station, One.
THURSDAY..... General Mining Company for Ireland—offices, Dublin, at Eleven.
London Joint-Stock Bank—offices, Eleven for Twelve.
Defender Fire and Life Insurance Co.—New London Hotel, at One.
FRIDAY..... Cleveland Milk Company—Marsden, at Two.
Grand Junction Canal Company—Crown and Anchor Tavern, Twelve.
SATURDAY..... Consolidated Investment and Assurance Company—offices, at One.
SUNDAY..... Wheel Sophia Mining Company—at the mine.
Bedford United Mining Company—offices, at Twelve.
General Annual Endowment Association—London Tavern, at Two.
Londonderry and Enniskillen Railway—offices, at Twelve.
Globe Insurance Company—offices, at One.

REGENT'S CANAL COMPANY.

The half-yearly meeting of this company was held on Wednesday, at the establishment, City-road Basin.

J. E. D. BETHUNE, Esq., having taken the chair,
Mr. RAW moved, that the minutes of the committee meetings be read to the assembly; which, after some discussion, was not seconded.

The CHAIRMAN read the report of the committee, which showed that the balance of the profit, for the half-year ending the 30th of Sept. last, including 650*l.* 17*s.* 8*d.* remaining from a former account, was 13,960*l.* 6*s.* 2*d.* being sufficient for a dividend of 12*s.* 6*d.* per share. The tonnages were 536,018, realising 21,950*l.* 7*s.* 4*d.* The haulage of the barges had worked satisfactorily. A man of 802*l.* had been paid to this company by the East and West India Dock and Birmingham Railway Company, but the East and West India Dock would be erected at Camden Town, so as to connect the company with the London and North-Western Railway. The reserve fund was 11,161*l.* 10*s.* 7*d.*—Mr. RAW complained of the committee having spent upwards of 10,000*l.* in law and engineering in the late railway project, and said, that an arrangement ought to have been made with the two sets of shareholders, before any application was made by them to Parliament.—The CHAIRMAN, in reply to Mr. Savage, said, that the customers of the company had been greatly inconvenienced, he knew, from the great drought which had prevailed, but that the late rains had put all things to rights. He was happy to say, that the tonnages had increased 26,000 over the corresponding half-year of 1846.—Mr. HICKENS doubted if the system of towing, adopted by the committee, would turn out a saving to the company.—The report having been adopted, Mr. GREEN proposed, that the report of the committee should be printed some days previously to the half-yearly meetings, which was agreed to; and, after a vote of thanks to the chairman, the meeting adjourned.

HUNGERFORD MARKET COMPANY.—The half-yearly general meeting of proprietors was held at the company's offices, Villier's-street, Strand, on Tuesday last—**MARTIN STUTTELY, Esq.**, in the chair.—The directors' report referred to the unavailing efforts of the Charing-cross Bridge Company to obtain power from Parliament to sell the bridge, and the ascertainment of the contract for sale and purchase thereof, with Messrs. Jackson, Walmsey and others; and congratulated the proprietors on the very satisfactory progress of the market company's affairs. The report was cordially received by the proprietors, and a dividend of 2*l.* 5*s.* per share was declared, and, after a vote of thanks to the chairman and directors, the meeting adjourned.

PATENT FOR IMPROVEMENTS IN MANUFACTURE OF TUBES.

COURT OF QUEEN'S BENCH, DECEMBER 1-2.

REGINA v. CUTLER AND OTHERS.—This was a proceeding by *ex facie* in order to respond a patent granted to the defendant Cutler, in the year 1841. The Attorney-General (with whom were Mr. D. Hill, Q.C., and Mr. Hindmarsh), appeared for the prosecution. Mr. Serjeant Talford (with whom were Mr. Whitestrick and Mr. Webster), appeared for the defendant Cutler; and Mr. Henderson for Bower and Selby, two other defendants who had acquired an interest in the patent.

THE ATTORNEY-GENERAL said, the patent question had been granted by her Majesty to the defendant, for certain alleged improvements in the manufacture of tubes for the flues of tubular steam-bollers. In order to establish the right of the defendant to the monopoly secured by this patent, two circumstances must be proved:—the first, that the invention was new; the second, that it was useful. In the first instance, it must be new. In addition to that, in order that when the monopoly expired the public might have the benefit of the invention, and that no person might unknowingly infringe upon the rights of the patentee, it was required that a specification of the nature of the invention should be made and enrolled within a given period. In every case where it could be shown that the invention was not of utility to the public, or was not new, or had not been properly described, the patent was null and void. In the present case, however, it was not necessary to proceed by *stricta jure* was instituted for the purpose of repealing the patent. If it should be proved, upon that inquiry, that the invention was both new and of utility to the public, (as the Attorney-General) should submit to his lordship that the invention had not been properly described in the specification. The jury would have to consider what was the course of manufacturing the tubular flues for steam-bollers up to that time, in the best manner, and by the best machinery, and then they would have to say, in the present case, whether the defendant was to be taken to have made any improvement upon the process by which the flues were to be hammered together the edges of the metal while hot, which was found to be a long and laborious process by manual labour, and, consequently, many efforts had been made, especially since the introduction of gas, for the discovery of an improved method of manufacturing tubes by machinery. The learned Attorney-General then described all the various patents which had been taken out since the year 1809 for that purpose, and argued that the defendant had not improved upon the process, and that he was not entitled to any monopoly. The defendant, in his specification, claimed as his invention as follows:—1. "The mode of welding iron or steel tubes by drawing them through dies, or between grooved rollers when, and at the same time as, drawing such tubes on mandrils, the mandril being a necessary and important part of the mechanical apparatus in producing the welding."—2. The welding of iron or steel tubes, by hammering upon a mandril, at the same time as drawing them through dies, or between rollers, or drawing the tubes on a mandril drawn over a mandril at one process.—3. The application of either iron or steel tubes when coated with copper, brass, or other alloys of copper, in the construction of tubular flues for steam-bollers.—4. In the construction of tubular flues of steam-bollers, the application of welded iron or steel tubes which have been drawn through a circular hole of die, or between rollers, and which have been drawn over a mandril for the purpose of making them so tight as to be capable of withstanding the pressure of steam, to give the flues the strength of the metal." The defendant had entered into an agreement with Mr. Russell, manufacturer of tubes at Birmingham, for the manufacture of tubes according to his patent; but, when the necessary experiments were made by the defendant at Mr. Russell's manufactory for the purpose of testing the value of the invention, it was found to be wholly useless. At one time the tubes were broken, and at another time the machinery was so injured that it was necessary to stop the experiments, and to give up the patent. Mr. Russell, and several other manufacturers, were then called in support of the case for the prosecution, which lasted the whole day.

On Thursday, Mr. Erjeant TALPOT (with whom was Mr. Webster) addressed the jury in support of the patentee's right, and complained of the difficulty cast upon him by Messrs. Bower and Selby, who, though nominally defendants, as licensees of the patent were in reality rendering all their assistance to the prosecution. It had been said that the invention was not sufficiently described in the specification, and yet it was alleged that the object of the prosecutor's had been able, from the simple drawings contained in the specification, to make the tubes of the patent, and to use them as well as useless. He contended that the tubes made by the patentee were more useful than any previously made; the great object was to procure thin tubes with sufficient strength in the joints so as to allow of a more rapid generation of steam. That object the patentee secured by the joints of the tubes being bevelled, and then overlapped. Joints so made were stronger than the joints of the tubes of the process of welding. The patentee's method also secured a perfect smoothness in the interior of the tubes. The patentee's method of the process of furring, as well as the accumulation of foreign substances in the tubes, was thereby prevented. The learned serjeant then exhibited a model of the apparatus, and minutely described its operation. He then explained to the jury that the former method of making the tubes was by what were called "jump-joints," where the edges of the plates or were very close placed together, and so welded. But the patentee's method, in which plates with bevelled edges were employed, had to a great extent superseded the old method. If the patentee's invention was useless, why should the prosecution (whoever he was) incur all that trouble and expense to obtain its repeal? If a man took out a patent for building castles in the air, nobody would proceed by *active facias* in order to have the castle pulled down. All the witnesses, who had been called, admitted that the objects proposed were most desirable, and that the patentee had succeeded in accomplishing them. The learned serjeant then called a great number of witnesses, who gave evidence in support of the patentee's right.

Mr. J. HENDERSON, on the part of the two defendants, Bower and Solby, said, that he appeared to defend the right of the patentee. The parties whom he represented had acted *bona fide*, and though he had not thought it necessary to cross-examine the witnesses, or to tender evidence in support of Mr. Cutler's right, that was only because it had been done more ably by the learned counsel (Welford).

Mr. M. D. HILL, Q.C. (with whom was Mr. Hindmarsh), in the absence of the Attorney-General, then replied at considerable length.—Lord DENMAN, in summing up, went through the whole of the evidence; and the jury, having retired for some time, returned into court a little before 6 o'clock, and gave a verdict for the defendant.

NEW RAILWAYS—DEPOSITING THE PLANS, &c.—Tuesday being the last day allowed by the Act of Parliament for depositing the plans and sections with the Commissioners of Railways; at 10 o'clock of the day, Whitehall, a few companies deposited their plans; the majority, however, had been left during the past week, consequently there was not that excitement and confusion that characterized the 30th November, 1845 and 1846. The Acts for which it is intended to make application during the present session amount to 148; comprising 15 for Irish lines, and 5 for Scotch ones. The total number of plans, &c., lodged in 1846, was 369; and in 1845, 678.

★**NEW MOTIVE POWER.**—The *Courrier de Lyons* of the 24th inst. mentions the following discovery of a new motive force:—"It is now some time since the idea of employing ether as a propelling force was suggested. Our townsman, M. Tromblay, has reduced this theory to practice. A machine worked by the steam of ether has been in full operation for the last six days in a glass-cutting manufactory in the Guillotière. Its power is equal to that of 20 horses."

THE REPUTATION OF HOLLOWAY'S PILLS AND OINTMENT IN THIS CASE OF RHEUMATISM.—In the West India, where this excruciating complaint is very prevalent, and the severity of the disease is much increased by the nature of the employment of the inhabitants, no remedy has been tried with such excellent results as Holloway's ointment and pills. All persons afflicted with rheumatism should have immediate recourse to these medicines, and will find them to be the most efficacious. In some cases, however, they are also, equally efficacious (frequently when every other remedy has failed), in the cure of all descriptions of wens, tumours, unnatural enlargements, and glandular swellings, as likewise contractions and stiff joints. Sold by all druggists, and at Professor Hol-

CAMERON'S COALBROOK STEAM-COAL COMPANY.—We understand, the Lords of the Admiralty have, by a recent letter, admitted Cameron's steam-coal to be offered for the supply of her Majesty's steam-vessels. The coal mines in the neighbourhood of Loughor and Coalbrook are being worked with increased vigour in consequence of the great demand for the steam-coal, and in anticipation of the opening of the Loughor Railway, which, by forming a junction with the Oystermouth line, will effect a direct communication between the coal-fields, which consist of upwards of 1300 acres, and the port of Swansea. The projected docks at Swansea will, it is hoped, be shortly commenced, as this great mineral district will mainly contribute to their prosperity.

MEDWORTH SLATE AND SLATE-SLAB COMPANY.—The directors, we understand, have determined to prosecute the workings of their valuable quarries with energy; and we doubt not that, ere long, they will rank among the first in North Wales, for produce and profit to the shareholders. We learn, that an eminent surveyor is now engaged in preparing a report upon the works, and the most advantageous mode of extending them.

CWMAYON WORKS.—We observe a paragraph in our contemporary, the *Cambrian*, of last week, relative to these works, which contains misstatements, calculated to deceive the public, and to frustrate and injure the operations of the proprietors of these extensive works. It is not true that the proposed reductions were so great as 20 per cent.; and it is perfectly ridiculous to suppose that the furnace manager would promise or accede to terms which were refused by the manager of the works. With regard to the stock of coal, the writer's ideas of quantities must be rather extensive—for, although the stock is not large, in proportion to the extent of the works, it exceeds two months' consumption.

LLENI IRON-WORKS.—A correspondent also contradicts the paragraph we copied into the Journal of the 20th Nov., from the *Swansea Herald*, respecting these works being at a stand for want of coal; the company, it appears, have at least 10 weeks' stock in their yards. The writer adds—"The mill and forge have certainly been at a stand for the last week, not for want of coal, but for the purpose of affixing an additional mill to the machinery already in use. The colliers have returned to their work, at a reduction of 20 per cent.; the same reduction has been made at Maesteg, Garth, Tondur, and Cwm Cwci; and, unfortunately, there are many colliers in the district unemployed—therefore, they have not left, and found employment elsewhere."

IRON TRADE IN SCOTLAND.—Notwithstanding several recent complaints of dulness in the iron trade, the minerals on the estate of Kerse, on the banks of Doon, Ayrshire, have been let to an English company, who are to commence operations in January next. The iron-works at Dalmeilston, in the same county, will soon be working, the engines being now in process of construction.

THE ROLLING AND COMPRESSING IRON COMPANY.—In the Court of Common Pleas, yesterday, an action was brought by Mr. Bush, an engineer, against Sir William Gossett and others, to recover £111 2s., for work and labour alleged to have been done, and money paid at their request. It appeared that Sir William Gossett, and other gentlemen of great respectability, formed themselves into a company in 1840, for the purpose of carrying out some improvement in the manufacture of iron, and that the company was called the Rolling and Compressing Iron Company. The plaintiff was engaged by them to aid the company in procuring an Act of Parliament, which was obtained in May, 1841, and hopes were held out to him, that he would afterwards be engaged at a considerable salary. His salary was afterwards fixed at 250*l.* a year; but, at the end of 1841, he was told that his services would be no longer required. He then brought an action against the secretary of the company, who was made the responsible officer under the Act, for the above amount; but Lord Denman, before whom it was tried, held that the secretary was only responsible for what became due after the passing of the Act, and his decision was, subsequently, confirmed by the full court. The plaintiff now brought the present action. The jury found a verdict for the plaintiff—damages, 200*l.*

ACCIDENTS.

North Pool Mine.—J. Blight, aged 15, fell from one of the ladders, as he was descending to his work, and was, we are sorry to say, killed.

Crow-Trees Colliery, Durham.—T. Newton was found dead in the main coal seam here—his head was lying in some water, about 10 inches deep; and, being subject to fits, it is supposed to have been seized with one while at work.

West Bromwich.—P. Norton, aged 15, was killed by a fall of coal while at work.

Kirby Ireth, Whitburn.—J. Lindos fell from the top of Smithy Hill Quarry (45 yards), and was, unfortunately, killed.

Lelly Colliery, near Moshyn, Flintshire.—A terrific explosion, arising from fire-damp, took place at this colliery, at which it was erroneously reported Mr. Wm. Ramaden, the colliery manager and surveyor of the works, had been killed. It will be gratifying to Mr. Ramaden's numerous friends, to learn that such was not the fact: Mr. Ramaden was injured by a fall, but is speedily recovering from its effects.

A Colliery Flooded.—Narrow Escape of Twenty Colliers.—Westgate Common Colliery, near Wakefield, and its two shafts, 30 yards deep, suddenly filled with water on Wednesday, and 20 colliers at work narrowly escaped with their lives. At 10 o'clock in the morning of that day, the men were at their usual employment in the pit. Clark, a man engaged in a part of the pit lying in another direction from most of the other colliers, discovering that there was an unusual softness and yielding in the material upon which he was working. At first the matter did not attract his attention to such a degree as to call for any unusual precaution on his part. But he soon found that water was gradually coming, and finding in very through the bed on which he was at work. He immediately proceeded to the other part of the works, and alarmed his fellow-workmen. Arrangements were made for the conveyance of the men out of the pit; scarcely had they been completed before the reality presented itself; a rapid influx of water had already commenced, and was gradually filling every portion of the colliery in which they had but the moment before been engaged. The dismay of the men may be imagined; their tools were quickly thrown aside, and every man was brought to the mouth of the pit as quickly as the circumstances would possibly allow. They had not remained long round the top of the shaft before they saw the water still rapidly rising; and within three-quarters of an hour from the first alarm both pits were filled with water. The shafts are each about 30 yards deep; and at this period the water had ascended to within three yards from the surface of the earth. This was the highest level it attained; and soon afterwards there was a perceptible, but not very material, sinking. When the alarm of the men had somewhat subsided, and it was presumed no further influx would take place, the steam-engine which usually works the colliery was put into requisition, and efforts were at once made to pump the water upwards, and convey it into an adjoining water-course. The working of the colliery will be suspended for some months, and several families will be deprived of their usual means of subsistence, as well as considerable loss incurred by the proprietors.

Lockford Colliery, near Chesterfield.—As James Flannery was filling a coke oven, before break of day, by some means slipped, and was precipitated to the ground, a distance of about eight yards. In falling, he cut the cap of his knee completely in two, and severely injured many parts of his body.

Hatch Colliery, near Rochdale—Three Lives Lost.—J. Rhodes, aged 19, J. Whitehead, 30, and J. Order 19, coal-miners, when about 560 yards up the mine, were suffocated by the foul air which had come from some old workings in the mine.

Fir Grove, Milnrow, near Rochdale.—As E. Clegg, aged 19 years, was ascending the pit, the chain broke, when he fell to the bottom, and was killed.

Inundation of Collieries and Loss of Life.—Early on Wednesday morning a lamentable occurrence took place close to the town of Wigan. The River Douglas broke down one of its banks, which had been weakened by the workings of some old coal mines, and the water washed its way through these old workings into those of collieries now in operation. The consequence has been the loss of four men, two boys, and 12 horses, which had been in the mines of the Ince Hall Colliery all night, and had no means of escape from the rushing torrents of water which came in upon them. The barrier between the river and the upper workings was so completely swept away, that the whole of the waters of the Douglas (usually a stream of some 18 in. or 2 ft. deep, but now by the recent heavy rains swollen to the height of 8 or 9 ft.), were emptied into the chasm, and the workings of a coal field of great area, say two miles by one-half of a mile, have been inundated. The colliery in which the loss of life has occurred is about half a mile from the point at which the water broke into the old workings. These old workings approach the surface of the ground to within about 10 or 12 ft., and the bed of the river to within about 12 or 14 ft. The present mines are upwards of 200 yards deep in some places, and the cause of the accident, of course, lies in the connection of these sets of workings, which is set down to the cupidity of some intermediate coal-owners, who removed the barriers former miners had left for the sake of the additional coal which they were enabled to get by this means. The works of not less than half-a-dozen collieries are stopped by the inundation, and it is estimated that several lives must elapse ere the water is cleared from the lower levels of the mines, and the bodies of the unfortunate workpeople can be got out. Besides this, in the interim, upwards of 600 colliers are thrown out of work. The rush of the water was fearful, and some of the shafts of the mines are 40 to 60 yards deep in water.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Adair's Main 16 6—Buddle's West Hartley 18 9—Carr's Hartley 18 9—Clavering's Tanfield 16—Hastings' Hartley 18 9—Howard's West Hartley 18 6—New Tanfield 16 6—Original Tanfield 16—Ponton Windsor 16—Tanfield Moor 17 6—Townley 16 6—West Hartley 19—Wylam 16 9—Wall's End Bewick and Co. 20 3—Clenell 18 6—Clarke and Co. 18 6—Gosford 20 3—Hedley 20 3—Killingworth 20—Riddell's 20 3—Washington 19 3—Wharmcliffe 20 3—Eden Main 20 3—Bell 20 3—Belmont 20 3—Bradley's Hutton 21—East Hutton 20 3—Hawell 21 3—Hutton 21 3—Keeper 21—Lambton 21—Russell's Hutton 21—Shotton 20 9—Stewart's 21 3—Whitwell 20 6—Hartlepool 21—Hudson's Hutton 20 6—High Thoralby 18 6—Heugh Hall 20—Kellie 21—Adeleide Toss 20 9—Cowdon Toss 20 3—Denison 19 6—Richardson's Toss 19 6—Seymour Toss 20 3—South Durham 20 3—Tees 21—West Cornforth 20—West Fease 17 9—West Toss 19 6—Whitworth 18—Garsfield Coke 20—Cowpen Hartley 18 9—Old Hailg Moor 15 6—Sney's Hartley 18 9—Ships at market, 147; sold, 124; unsold, 23.

WEDNESDAY.—Adair's Main 16 6—Carr's Hartley 18 9—Hastings' Hartley 18 9—New Tanfield 16—Original Tanfield 16—Ponton Windsor 16—Tanfield Moor 17 6—Townley 16 6—West Hartley 19—Wylam 16 9—Wall's End Bewick and Co. 20 3—Clenell 18 6—Clarke and Co. 18 6—Gosford 20 3—Hedley 20 3—Killingworth 20—Riddell's 20 3—Washington 19 3—Wharmcliffe 20 3—Eden Main 20 3—Bell 20 3—Belmont 20 3—Bradley's Hutton 21—East Hutton 20 3—Hawell 21 3—Hutton 21 3—Keeper 21—Lambton 21—Russell's Hutton 21—Shotton 20 9—Stewart's 21 3—Whitwell 20 6—Hartlepool 21—Hudson's Hutton 20 6—High Thoralby 18 6—Heugh Hall 20—Kellie 21—Adeleide Toss 20 9—Cowdon Toss 20 3—Denison 19 6—Richardson's Toss 19 6—Seymour Toss 20 3—South Durham 20 3—Tees 21—West Cornforth 20—West Fease 17 9—West Toss 19 6—Whitworth 18—Garsfield Coke 20—Cowpen Hartley 18 9—Old Hailg Moor 15 6—Sney's Hartley 18 9—Ships at market, 147; sold, 124; unsold, 23.

FRIDAY.—Adair's Main 16 6—Buddle's West Hartley 18 9—Carr's Hartley 18 9—Clavering's Tanfield 16—Hastings' Hartley 18 9—Howard's West Hartley 18 6—New Tanfield 16 6—Original Tanfield 16—Ponton Windsor 16—Tanfield Moor 17 6—Townley 16 6—West Hartley 19—Wylam 16 9—Wall's End Bewick and Co. 20 3—Clenell 18 6—Clarke and Co. 18 6—Gosford 20 3—Hedley 20 3—Killingworth 20—Riddell's 20 3—Washington 19 3—Wharmcliffe 20 3—Eden Main 20 3—Bell 20 3—Belmont 20 3—Bradley's Hutton 21—East Hutton 20 3—Hawell 21 3—Hutton 21 3—Keeper 21—Lambton 21—Russell's Hutton 21—Shotton 20 9—Stewart's 21 3—Whitwell 20 6—Hartlepool 21—Hudson's Hutton 20 6—High Thoralby 18 6—Heugh Hall 20—Kellie 21—Adeleide Toss 20 9—Cowdon Toss 20 3—Denison 19 6—Richardson's Toss 19 6—Seymour Toss 20 3—South Durham 20 3—Tees 21—West Cornforth 20—West Fease 17 9—West Toss 19 6—Whitworth 18—Garsfield Coke 20—Cowpen Hartley 18 9—Old Hailg Moor 15 6—Sney's Hartley 18 9—Ships at market, 149; sold, 92; unsold, 57.

HOLYHEAD HARBOUR OF REFUGE, &c.—TO CONTRACTORS.—THE LORDS COMMISSIONERS OF THE ADMIRALTY GIVE NOTICE, that they are ready to RECEIVE TENDERS FOR SUNDRY WORKS to be executed at Holyhead, in connection with the intended Harbour of Refuge, comprising the FORMATION OF RAILWAYS and the ERECTION OF SEA WALLS.

Plans, sections, specifications, and conditions, will be open to the inspection of intending contractors, at the office of Messrs. Rendel and Beardon, civil engineers, 4, Great George-street, Westminster, from Monday, the 8th day of November, till Monday, the 6th day of December next, between the hours of Ten o'clock in the morning and Four o'clock in the afternoon. Tenders must be delivered at the Admiralty, on or before Twelve o'clock noon, on Tuesday, the 7th day of December, according to a form that will be furnished at Messrs. Rendel and Beardon's offices. Their lordships will not be bound to accept the lowest tender. Admiralty, Nov. 4, 1847.

RAILS.—FOR SALE, BY PRIVATE CONTRACT, FIVE THOUSAND TONS OF WROUGHT-IRON RAILS, of such quality as those now used by all the ENGLISH RAILWAYS.—To be delivered on board ship, or on a wharf in the Bristol Channel, in equal proportions, in the months of January, February, March, April, and May next; and to be made to the form given by the purchaser, of not unusual, equal top and bottom, or single-headed form. The make is first-rate, and the contract will be handed over to the purchaser for direct communication with the maker, if desired.

Approved bills, at six months, or debentures, of an approved Railway Company, at 15 months, will be taken in payment. For particulars, apply to Messrs. Whitcomb and Barton, metal brokers, 75, Old Broad-street, London.

CALEDONIAN RAILWAY.—LOANS ON DEBENTURES.

THE CALEDONIAN RAILWAY COMPANY are prepared to RECEIVE TENDERS OF LOANS ON DEBENTURES, in sums of not less than £500, for three or five years—bearing interest at the rate of 5 per cent. per annum, payable half-yearly, in Edinburgh, Glasgow, London, Liverpool, Manchester, or Bristol.

Tenders to be addressed to this office. Parties may also communicate personally with Messrs. Foster and Brithwaite, 68, Old Broad-street, London.

By order of the directors, D. RANKINE, Treasurer. Caledonian Railway Office, 122, Princes-street, Edinburgh, March 26, 1847.

BIRMINGHAM AND OXFORD JUNCTION RAILWAY COMPANY.—FURTHER CALL OF FIVE POUNDS PER SHARE.—The directors having made a further CALL OF FIVE POUNDS per share upon the respective shareholders in this undertaking, PAYABLE on the 30th day of December next, Notice is hereby given, that the shareholders are required to pay such call on the said 30th day of December next, to the persons and at the places hereinafter named, or some or one of them (that is to say):—

To the Birmingham Banking Company, at their bank in Birmingham.
To Messrs. Attwoods, Spooner, and Co., at their bank in Birmingham.
To Messrs. Jones Lloyd and Co., at their bank in Lottbury, London.
To Messrs. Spooner, Attwoods, and Co., at their bank in Gracechurch-street, London.
To Messrs. Moss and Co., at their bank in Liverpool.

And, in default of payment being so made, the shareholders making such default will be charged interest, at the rate of 45 per centum per annum, from the last-mentioned date, until the call is actually paid.

A circular will be sent to each shareholder, which must be deposited at the bankers', when the call is paid. By order of the board of directors, JOHN W. KIRSHAW, Sec. 24, Bennett's-hill, Birmingham, Nov. 10, 1847.

BIRMINGHAM AND OXFORD JUNCTION RAILWAY.

TO THE DIRECTORS OF THE BIRMINGHAM AND OXFORD JUNCTION RAILWAY COMPANY.

WE, the undersigned, being shareholders in the Birmingham and Oxford Junction Railway Company, holding in the aggregate more than five thousand shares (that is to say, more than one-tenth part of the capital), therein do by this writing under our hands require you forthwith, on the receipt hereof, to call an EXTRAORDINARY GENERAL MEETING of the shareholders of the said company, for the following objects or purposes, that is to say, for the purpose of considering the subject of an action lately commenced against the said company, by Messrs. Samuel Mortons, Peter and William Eastled, and also the several actions which have been commenced in the name of the said company against various shareholders therein, for enforcing payment of a call made, or purporting to have been made, on the twelfth day of June, one thousand eight hundred and forty-seven; and for the purpose of considering and determining upon and giving such directions as may be thought fit, as to the course to be adopted by the said company with reference to such actions respectively, and the subjects thereof respectively, and of considering the propriety of appointing, and if so thought fit of appointing, under the common seal of the said company or otherwise, and directing the employment of an attorney or solicitor, or attorneys or solicitors of the said company, to act on behalf of the said company generally and in all matters or on such particular matters, and for such period, and either exclusively or otherwise, as the said meeting shall think fit; and resolve, and also to consider the propriety of removing, and if thought proper to remove, or discontinue the employment of any person or persons who have, or has, acted as attorneys or solicitors, or as attorney or solicitor of the said company, and giving such directions, and making such orders as the said meeting may deem expedient in reference to, or consequential upon, any such appointment, employment, or removal, or other the matters aforesaid, or any of them; and also to take into consideration, and to determine whether any, and if any, what measures should be taken as to soliciting, prosecuting, supporting, or opposing any bills or bill, or other proceedings or proceeding before Parliament on the behalf, or in the name, of the said company; and as to taking, prosecuting, discontinuing, withdrawing, or abandoning, any notices or other proceedings which have been, or may be, given or taken with reference to any such bill or bill, or other proceedings in Parliament, and giving all such directions as to such meeting may seem proper in reference to any such matters.—Witness our hands, this 5th day of November, 1847.

Elias J. Mozley
T. D. Hornby
Edward Cropper
William Reynolds, jun.
Robert Bickerton
William Hall
Lewis Mozley
Thomas Arthur Hope
Thomas Goodier
Charles Mozley
Joseph Jones
Henry Toole
Samuel Beale
Harman Griswood
John Edward Phillips
Aubrey Alexander Hoghton
John Sanderson
Christopher Hird Jones
Thomas Birch
Charles Wilson
Robert Jones
James Ryley
Hardman Earle
Edward Toole
Samuel Brooks
Abraham Watkins
W. John Beale
Abel Puyton
T. R. Cobb

The requisition above set forth having been presented to the directors of the Birmingham and Oxford Junction Railway Company, Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of the said company will be HELD at the Royal Hotel, in Birmingham, on Tuesday, the 28th day of December next, at half-past Two o'clock in the afternoon.

J. H. MUNTZ, Chairman.
JOHN W. KIRSHAW, Secretary.

24, Bennett's-hill, Birmingham, November 27, 1847.

WHEEL LAWRENCE COPPER MINE, BRIDFORD, IN THE COUNTY OF DEVON.

TO BE WORKED ON THE "COST-BOOK" PRINCIPLE.

The mine to be divided in 1024 shares, 200 of which are at the disposal of the committee at £3 2s. per share—the proceeds whereof will be appropriated to the working of the mine.

HENRY WESTON, Esq., Mining Engineer.—Mr. Henry James.

Francis T. Rodd, Esq., Purser (pro tem.).—Mr. Lewis, Exeter.

Secretary (pro tem.).—Mr. N. Taperell, Exeter.

London Agent.—William Henry Smith, Esq., 16, Angel-court, Throgmorton-street.

To whom application for Shares may be made.

The West of England and South Wales District Banking Company, Exeter.

Messrs. Glyn and Co., London.

PROSPECTUS.

Wheel Lawrence is situated in the parish of Bridford, in the county of Devon, about seven miles north-west of Exeter. This valuable and extensive mining set has been recently granted, by Sir L. V. Falk, Bart., at one-fiftieth dues, for a term of 21 years. This set joins the Wheal Anna Maria on the west, and extends nearly one mile east from it, on the course of the lode, and about half a mile wide from north to south. It is considered, that the south lode runs into the lands of the Rev. Richard Stevens, of Culverhouse, from whom a set has been obtained, on the same terms as Sir L. V. Falk's. The lodes in Wheel Lawrence, going east, make themselves in a very high hill, and will, by driving 100 fathoms on the course of them, get from 20 to 30 fathoms back.

The lodes average in size about 5 feet wide, and are of the most promising appearance. Excellent stones of rich yellow and black oxide copper, have been produced from the lode at a depth of 7 feet, and there can be no doubt of their producing a great quantity of copper ore above the level of the river. From the geological survey of Sir H. T. De la Beche, Knt., it can be seen that Wheel Lawrence and Wheal Anna Maria, are situated in precisely the same sort of strata as the celebrated copper mines near Tavistock.

A general meeting of the shareholders will be convened as early as possible, and all the preliminary business arranged as to the future working of the mine. The operations of the company will be carried on under the Cost-book Principle, and no shareholder will be liable for any expenses incurred after the relinquishment of his or her shares.

REPORT.

To the Committee of Management of Wheel Lawrence Copper Mine.

GENTLEMEN.—According to your request we beg to hand you a report of the Wheel Lawrence Copper Mine, in the parish of Bridford, Devon. There are seven east and west lodes, running through this extensive mining set. Three of them we have opened, and sunk a few pits. The first we sunk on, is a lode 11 ft. wide, made up with gossan, mudiic, soft spar, and some very good stones of rich yellow copper ore. The second lode is about 3 ft. big, of a very kindly appearance, producing some excellent stones of copper ore, and rich stones of silver-lead ore, with gossan, posch, mudiic, &c. We, therefore, think that the great cross-course comes on very near to where we have cut this lode, and that makes it produce the silver-lead; if so, there cannot be much doubt of the east and west lode producing a large quantity of copper near the cross-course. The third lode is about 5 feet big, with gossan, spar, mudiic, and copper ore. We have commenced cutting leads to bring home the water to work our machinery, for the pumping the water from the mine. We intend to sink on the lode named first in this report, and that shaft will command five of the lodes by driving cross-cuts from one to the other. We hope to finish our machinery in three weeks from this time, when we shall commence sinking. We purpose to sink 15 fathoms, and cross-cut all the lodes, and from the very encouraging appearances at or near the surface, we consider that we may safely calculate on having some good bunches of copper ore at this level. From all the indications, we feel that we are justified in saying we shall have a good mine. HENRY JAMES, Mining Engineer. THOMAS MOYLE, J. Engineers. Dated Nov. 13, 1847.

Just published, Part I.

COMBUSTION OF COAL, CHEMICALLY & PRACTICALLY CONSIDERED. With coloured plates.

By CHARLES WYLLIAMS, Esq.

London: Simpkins, Marshall, & Co., and J. Weyle—Birmingham: Wriggleson & Webb.

ASSAYING AND ANALYSIS.—Mr. MITCHELL begs to inform the MANAGERS, &c., of MINES, SMELTING-WORKS, and MANUFACTORIES, that he still continues to CONDUCT ASSAYS and ANALYSES of all PRODUCTS, metallurgical and manufacturing, at his LABORATORY.

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LONDON, 348, STRAND, September 1, 1847.

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